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Joe Amado (center), CIO at Philip Morris USA, engineered a dramatic turnaround in IT service delivery and business alignment.

Good TO Great

The IT department at Philip Morris USA used to be known as technically adept but wasn't seen as a strategic partner with the company's business units. Today, it's a very different story, reports Thomas Hoffman. **PAGE 37**

IBM PC Users Face Uncertain Future

Some worry about product quality, support after planned sale; others see no big changes

BY PATRICK THIBODEAU
AND CAROL SLIWA

Now that IBM plans to sell its PC division to Beijing-based Lenovo Group Ltd., the big question is whether the companies can keep users from defecting to other vendors — which would put IBM's once standard-setting PCs even further behind systems from Dell

Inc. and Hewlett-Packard Co. in market share.

After the deal with Lenovo was announced last week, some of the more than two-dozen IBM users *Computerworld* interviewed or contacted via e-mail said they don't expect the planned sell-off to have an immediate effect on their companies. But many others voiced concerns about whether the quality of IBM's hardware and the technical support they receive will suffer once Lenovo takes over during next year's second quarter.

For example, longtime IBM user Sidney Soberman, director of technology systems at

The H.W. Wilson Co. in New York, said the publishing company's ThinkPad notebook PCs are durable and never break down. But with Lenovo buying the technology, "I would tend to think the quality of the notebooks will decline," said Soberman.

Some IBM users said they plan to look at other vendors as a result of the deal with Lenovo. "We will now more seriously look at other options, such as Dell, as we replace our PCs,"

said the CIO at a U.S.-based nonprofit organization. The CIO, who asked not to be identified, added that almost all of the organization's 600 PCs are IBM machines.

The director of application development at a national re-
IBM, page 55

ONLINE

Go to our Web site to read more about the deal:

**QuickLink
a5230**

Cisco Users See Some Pricing Relief

Vendor has lowered its costs, they say, but not across the board

BY MATT HAMBLIN
SAN JOSE

Cisco Systems Inc.'s prices have typically been higher than those charged by its smaller networking rivals. But some IT managers and analysts said last week that the pricing situation has improved modestly for Cisco customers.

Two analysts who attended
Cisco, page 14

CISCO'S VIEWPOINT

In a Q&A, CEO John Chambers says he hasn't heard users complain about pricing "in a very long time." **Page 14**

Compliance Pressures Prod IT To Limit Use of Spreadsheets

Business intelligence vendors offer tools to eliminate input errors

BY HEATHER HAVENSTEIN

In the face of tighter regulatory controls for reporting financial data, many IT departments are wrestling to eliminate or control the widespread use of spreadsheets. But many

end users are likely to rebel if the ubiquitous tool is taken away from them.

Business intelligence vendors are maneuvering to offer solutions to the problem in the form of new software that can eliminate the errors often produced when data is entered into spreadsheets.

Actuate Corp. this week will
Spreadsheets, page 12



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Viktor Portmann
Project Manager, Department of Foreign Affairs, Switzerland



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Driver's Seat

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Finish the Feud

In the Management section: When IT users and the help desk staff are throwing virtual spitballs at each other, everybody loses. Here are some tips for thawing the cold war. **Page 42**

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The Pros and Cons of MSSPs

SECURITY: Jian Zhen of LogLogic examines the advantages and pitfalls of managed security service providers in this two-part series. **QuickLink 51124**

Outsourcing in India: A View From the Recruiting Trenches

OUTSOURCING: When looking for candidates to fill management positions in India, it's important to consider local values and potential culture clashes, advises Korn/Ferry International's Gita Dang. **QuickLink 50948**

Enterprise SAN for Mac OS X Server

MACINTOSH: Columnist Yuval Kossovsky offers a primer on storage-area networks in Part 1 of this three-part series. (He will follow up with a piece on Mac OS X and SAN enterprise backup.) **QuickLink 51270**

Digital Media Firm Drives Down Costs With ILM

STORAGE: Loudeye, which serves more than 4 million song samples a month, needed a storage system that could hold all that data without breaking the bank. **QuickLink 51264**

Safer Web Browsing

SECURITY: Many companies put their networks at risk by failing to properly secure public Web sites. Network Security Technology's Daniel J. Frasnelli provides tips on improving security. **QuickLink 50960**

What's a QuickLink?

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QuickLink a2420

AT DEADLINE

AT&T Wins \$174M Networking Pact

AT&T Corp. last week won a \$174 million global networking contract from Siemens AG. The four-year deal calls for AT&T to provide Siemens with a management framework using AT&T's Business-Direct Web portal. Siemens officials said the portal will be used to interact directly with AT&T for the day-to-day management of the Siemens corporate network.

Nortel, Symantec Join to Beat Bugs

Nortel Networks Ltd. and Symantec Corp. last week agreed to jointly deliver products to help companies filter out Internet attacks before they reach servers and other corporate systems. Under the terms of the agreement, Nortel will begin shipping application switches incorporating Symantec's signature-based anti-virus and intrusion-detection technologies sometime in 2005.

AT&T Gets \$1B Treasury Contract

The U.S. Department of the Treasury awarded a \$1 billion contract to AT&T Government Solutions and partners to build a new secure high-speed network for its operations. The network will connect more than 1,000 Treasury locations, linking tens of thousands of users around the world with voice, video and data communications. The network is scheduled to be completed by August 2005.

Siemens Buys WLAN Developer

Siemens Communications last week agreed to acquire wireless LAN start-up Chantry Networks Inc. Terms weren't disclosed. Officials said Siemens will add the Chantry BeaconWorks product, a WLAN switch, to its HiPath product line. Siemens' venture capital arm this fall contributed to a \$17 million funding round for Chantry.

Process, Integration Key to CRM Success

Some IT managers share lessons from failed projects

BY MARC L. SONGINI

A STRONG business process, robust application integration capabilities and solid management buy-in are key factors in any successful CRM installation, said users at two events in San Francisco last week.

IT managers on panels at Oracle Corp.'s OpenWorld user conference and a separate event sponsored by Siebel Systems Inc. offered advice on implementing CRM systems. Some acknowledged that their CRM expertise comes from lessons from failed projects.

John Graff, vice president of marketing and customer operations at National Instruments Corp., said that few CRM failures result from flawed technology. "In my view, the single biggest reason is a lack of a business strategy," he said during a forum at OpenWorld.

National Instruments, an Austin-based maker of high-tech instrumentation products, runs the Oracle E-Business Suite 11i CRM application to support sales, marketing and services operations.

Without a business strategy for CRM, companies can rarely gain any return on a CRM investment, Graff said. For example, he said some companies buy a CRM tool and install it but "don't know what the business process is. They just press a button and get data. There's no strategy [for how to use the data]. It's not easy stuff."

Sealing Devices Inc., a Lancaster, N.Y.-based manufacturer, failed in two efforts to implement CRM systems before succeeding on its third try, said CIO Patrick Harris. The two failures were primarily

the result of a lack of integration with other applications. The failed CRM systems — the first homegrown and the second a package from an undisclosed vendor — required much redundant input of data, which led to mistakes. The company's current system, which is based on Oracle CRM and other Oracle applications, allows users to enter data once for all systems.

Sealing Devices expects its latest project to deliver an ROI of 153% over five years.

San Francisco-based Izmo-cars, a provider of Internet tools to the automotive industry, also suffered through multiple CRM failures before undertaking a successful effort, which was based on Siebel's OnDemand hosted sales force automation software. Izmo-

cars blamed a variety of technical and cultural problems for its failed CRM efforts, which were based on Siebel's Enterprise software, Salesforce.com Inc.'s hosted systems and Microsoft Corp.'s CRM software.

At the Siebel event, Izmo-cars President Tej Soni said one of the keys to succeeding with CRM in a small or mid-

“The single biggest reason [for failed CRM projects] is a lack of a business strategy.”

JOHN GRAFF, VICE PRESIDENT OF MARKETING AND CUSTOMER OPERATIONS, NATIONAL INSTRUMENTS CORP.

size business “is nailing down the process and ensuring process compliance.” Many smaller companies don't document their sales processes — something Izmo-cars did for the OnDemand rollout.

Soni said the Izmo-cars process includes input from the company's sales force. Soni credited the documentation and user input for the successful use of the new CRM system. In the past, sales personnel used CRM software only for basic calendaring, not for the full sales process, he said.

Meanwhile, Susan Knox, senior vice president of sales and marketing at eTelecare International in Monrovia, Calif., contended that “[CRM roll-outs] fail because they don't have executive sponsorship.”

ETelecare, a provider of call center services, runs Siebel's OnDemand product. To succeed, it also helps to provide “early wins,” such as rolling out the CRM applications in small increments to a limited number of users, she said.

Q 51391

Oracle Touts Apps at OpenWorld

SAN FRANCISCO

Oracle this week moved to assuage fears that it has taken its eyes off of its E-Business Suite, making a number of announcements at the Oracle OpenWorld conference here.

The company used the OpenWorld stage to unveil the next-generation E-Business Suite 11i.10 package as well as a wide array of incremental enhancements to its 10g family of database and infrastructure products.

In the process, Oracle appeared to be escalating an effort to sell users on the benefits of E-Business Suite, which some observers said had been allowed to languish while Oracle promoted its 10g offerings.

Oracle executives emphasized the tight integration between the 10g technology stack and the new application suite. The integration will enable companies to draw from more sources of customer information and have relevant data sent to

users via personalized dashboards, they said.

Pat Dues, president of the independent Oracle Applications Users Group and project officer for the Las Vegas city manager's office, said that while Oracle has been emphasizing its 10g products over 11i, the company's developers didn't let the product suite languish. “The No. 1 thing when building something is to have the foundation,” she said.

New Products

SOME OF THE PRODUCTS ORACLE ANNOUNCED AT OPENWORLD:

- Data hubs for product and financial information
- Oracle Files 10g content management software
- Oracle 10g Release 2 database software with new sorting, automated fail-over and security features

explaining why Oracle's strategy for promoting its infrastructure products makes sense.

Joshua Greenbaum, an analyst at Enterprise Applications Consulting in Berkeley, Calif., said that “it looks like applications may come out of the dark basement they've been in the last few years. This could give Oracle the ability to give SAP a run for its money. We need that.”

The integration between the 10g and 11i lines appeals to Kim Autrey, vice president of business systems at CNL Restaurant Capital LP, an Orlando-based financial services company.

Autrey said his company hopes to go live with the 11i.10 suite next year, replacing E-Business Suite 11.5.9. CNL users could take advantage of new technology built around the Oracle 10g Portal for functions such as single sign-on, which would help eliminate the need for multiple passwords and help the company comply with the Sarbanes-Oxley Act, he said.

— Marc L. Songini

Microsoft Offers More Support for NT Server – at a Price

Will charge flat fee for security fixes

BY CAROL SLIWA

IT managers at The Guardian Life Insurance Company of America knew that support for the company's Windows NT 4.0 servers was due to end on Dec. 31. But they hoped that Microsoft Corp. would relent and continue to provide security fixes free of charge, as it has sometimes done in the past.

Not this time.

Microsoft announced Dec. 3 that it will continue to provide fixes for NT Server for security vulnerabilities classified as critical or important — but users will have to pay a flat fee as part of a new two-year custom support program that the vendor will launch on Jan. 1. Microsoft plans to offer a similar program for Exchange Server 5.5 after its support period expires at the end of 2005.

But in an e-mail poll of 23 former and current users of NT Server last week, only one — New York-based Guardian — said it plans to purchase the custom support option. Five of the respondents said they had completed migrations off of NT. Another 11 said that 10% or less of their servers are running NT, so they see no pressing need to pay for support.

Dwindling Numbers

"Any server that is important enough to warrant maintenance should already have been upgraded," said Scott Campbell, director of IT operations at First American Title Insurance Co. in Santa Ana, Calif. Campbell said First American will probably run its dwindling number of NT servers, which handle small and lower-value applications, in an unsupported mode.

Bob Mathers, second vice president of IT operations at Guardian, declined to disclose the cost of the custom support program. But he said it is "pricey," particularly since he hadn't budgeted for the expense. He also noted that Guardian must submit a Windows Server 2003 migration

plan to Microsoft to gain approval for participating in the custom support program.

But 370 of Guardian's 1,100 Windows servers are NT-based and support domain controllers, homegrown business applications and the distribution of software updates to insurance agents in the field. So custom support is a "necessary evil" to enable an orderly transition to Windows Server 2003 next year, Mathers said.

Microsoft's support lifecycle policy, which was last updated in May [QuickLink 47207], calls for a minimum of five years of "mainstream" support followed by five years of "extended" support. How-

ever, the updated support policy applies only to software products released during the previous five years, thereby excluding Windows NT 4.0 Server, a 1996 release, and Exchange 5.5, from 1997.

Microsoft wouldn't disclose the custom-support price on NT but said the flat fee is the same regardless of the number of servers a company has. Peter Houston, senior director of Windows serviceability at Microsoft, said the program was designed to help the largest customers stay secure.

The fee is an annual one, but users can pay quarterly, according to Houston. Customers that migrate off of NT before a year is up won't have to pay for the remaining quarters, he said.

Two large customers with

Staying Put

Users polled last week cited the following reasons for continuing to use Windows NT:

- Upgrade too costly
- Only noncritical applications run on NT now
- Old hardware not replaced
- Custom applications haven't been tested on newer releases

between 30% and 50% of their Windows servers still on NT said they won't purchase Microsoft's custom support. One, a U.K.-based financial institution, already negotiated a separate support deal. Peter Schleidt, CIO at Danske Bank A/S in Copenhagen, said its NT servers will run unsup-

ported only for a short time until a migration is done.

In April, IDC projected that 17% of the Windows server installed base would be using Windows NT 4.0 Server at year's end. "The fact that it's staying on pretty strong is an indication of the challenges customers face in getting off the product," IDC analyst Al Gillen said last week.

About 15% of Oregon State University's Windows servers still run NT, hosting low-priority specialty applications. Jon Dolan, associate director of network services, said it's unlikely the Corvallis school will buy custom support.

"We've been migrating off 4.0 for some time and will use this as a reason to either upgrade the remaining servers or drop them off the network," Dolan said. **51397**

BEA and Oracle Add SOA Tools to App Servers

BY HEATHER HAVENSTEIN

BEA Systems Inc. and Oracle Corp. last week detailed new features in their application servers that are designed to help companies build service-oriented architectures (SOA).

BEA announced the beta version of WebLogic Server Version 9.0, code-named Diablo, which executives said supports the development of Web services with new reliable messaging and high-availability features.

Diablo supports J2EE 1.4 and WS-ReliableMessaging and can provide enterprise-class messaging features, like store and forward capabilities, that are critical for Web services transactions, said Eric Stahl, senior director of product marketing at San Jose-based BEA. "If messages are lost, the infrastructure will roll back the transaction or send the message again," he said.

Diablo can also be used to upgrade applications and servers, allowing users to keep applications online, he said.

The beta version of Diablo will be available this week. WebLogic Server 9.0 will ship by mid-2005.

Oracle unveiled Oracle Ap-

plication Server 10g Release 2 with support for SOA standards such as WS-Reliability and WS-Security as well as enhanced business process automation and monitoring capabilities at its annual OpenWorld conference in San Francisco. The application server will ship in stages through the first half of 2005.

"There are a lot of new capabilities for building Web services in Java," said Thomas Kurian, Oracle's senior vice president of server technologies. He added that a new tool called Business Activity Monitoring can "monitor business

processes, enterprise applications and business events, and take corrective action."

Competitive Advantages

The new messaging features will help BEA gain market share from rival integration and messaging vendors, said Shawn Willett, an analyst at Current Analysis Inc. in Sterling, Va. And Oracle has assembled a suite that moves it ahead of IBM in some areas, he added. "There is a lot of evidence that customers are ready for Business Activity Monitoring if it is packaged right," Willett said, adding that

the new integration capabilities correct a traditional Oracle weakness.

Spheris Inc. is migrating to Oracle's application server software for its reliability and scalability, said David Denise, vice president of applications at the medical transcription company in Franklin, Tenn.

Denise said Oracle's enhanced support for Web services will help Spheris integrate its systems with those of its partners.

"Every customer we work with has some sort of customization," he said. "If we can rapidly and agilely respond to their needs, [we get] a clear competitive advantage."

Aloha Airlines Inc. uses Oracle's application server software to expose reservations data from its mainframe as Web services. Soren Burkhart, senior vice president and CIO at the Honolulu-based airline, said Oracle's BPEL Process Manager lets developers model business processes to see where process linkages occur.

"You can create a lot of stand-alone Web services, but if your coders have to manually code each point, you will have problems when the business changes," Burkhart said. **51381**

NEW FEATURES

BEA WEBLOGIC 9.0

- BEA WebLogic JRockit 5.0 Java Development Kit
- Support for J2EE 1.4 and WS-ReliableMessaging standards
- Messaging infrastructure to deliver high-volume messages between systems
- Portal-based administration console to provide different views based on roles
- Live application and server upgrades in tandem with production applications

ORACLE APPLICATION SERVER 10G RELEASE 2

- Oracle JDeveloper 10g Release 2 with enhanced Java editing, compiling and deployment
- Support for WS-Reliability and WS-Security standards
- Business activity monitoring and business event management functionality
- Integration features that support development of service-oriented architectures

BRIEFS

Start-up Building Gridlike Tools

Former Oracle Corp., Sun Microsystems Inc. and BEA Systems Inc. executives last week launched Cassatt Corp. to build gridlike tools to automate IT operations, leverage commodity hardware and software, and govern network compute cycles. Founders include former BEA Chairman Bill Coleman, Sun Chief Engineer Rob Gingell and Rich Green, who led Sun's Java group.

Nortel to Restate Results Next Year

Nortel Networks Corp. last week said it plans to refile 2003 and first-half 2004 results starting Jan. 10. Nortel said it expects to report unaudited third-quarter results next week, along with updates to its previously announced estimated unaudited first- and second-quarter 2004 results and limited estimated unaudited results for 2001, 2002 and 2003.

U.K. Agency Suffers Computer Mishaps

Some 40,000 computers in the U.K.'s Department for Work and Pensions lost access to their network last month when a software upgrade was incorrectly installed, the latest in a series of computer mishaps that the agency has experienced. Electronic Data Systems Corp., which runs the system, last week blamed the four-day disruption on an unscheduled software upgrade.

Mozilla Releases Open-Source E-mail

The Mozilla Foundation last week released Version 1.0 of its Thunderbird e-mail client, just weeks after launching its Firefox 1.0 Web browser. The stand-alone open-source e-mail application, which has been in development since early 2003, offers a user-trainable junk-mail filter and a built-in RSS reader. Downloads of early versions have surpassed 1 million.

ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY GOSSIP BY MARK HALL



MATTHEW FAULKNER

Open-Source Rivals Go to the Mat . . .

. . . in a middleware smackdown. While it may not produce as bloody a match as the once-epic struggle between Microsoft and Sun did, JBoss Inc. and Gluecode Software Inc. are squaring off for a tussle over which of their open-source alternatives is more superior to proprietary J2EE-based middleware from IBM, BEA Systems Inc. and other vendors.



FLUERY
pushes BPM,
messaging.

This week, Atlanta-based JBoss unveils its JBoss Enterprise Middleware System (JEMS), an integrated software bundle that includes a Java application server, a business process management (BPM) engine and a set of Eclipse-based development tools. A corporate portal application is due to follow in next year's first quarter, and later in 2005, JBoss plans to ship an enterprise service bus that will perform interapplication messaging duties. Pricing for JEMS support starts at about \$10,000.

Gluecode announced its enterprise-class Joe software stack last month, using application server, portal, database and BPM technologies from The Apache Software Founda-

tion [QuickLink 50817]. The El Segundo, Calif.-based company has said it will add clustering capabilities and expanded Web services support to Joe in the first quarter of 2005. Annual support fees start at \$3,500.

The rival offerings are getting the competitive juices flowing inside the CEOs of the two open-source companies. Gluecode's Winston Damarillo suggested that using open-source technology managed and controlled by a single company, such as JBoss, is less pure than relying on tools from a nonprofit group like Apache.

Meanwhile, JBoss boss Marc Fleury dissed Gluecode's use of proprietary integration code that can't be relicensed on



DAMARILLO
opts for
Apache path.

an open-source basis as definitely impure. Of course, you can avoid the intramural scuffle by downloading all the open-source technology for free and integrating it yourself. But what fun would that be? Stay tuned.

Postini turns on encryption feature . . .

. . . that's available to almost everyone. Each day, more than 30 million of the e-mail messages processed by Postini Inc.'s antispam service request transmission via the Transport Layer Security (TLS) protocol. So the Redwood City, Calif.-based vendor has now added a TLS encryption option. When a TLS-equipped server sends a message to another system that supports the protocol, encrypted packets are exchanged. If TLS isn't enabled on the system at the receiving end, clear-text packets can still be processed. With TLS, end users don't need to do anything to secure their data, says Andrew Lochart, director of product marketing at Postini. He says that although TLS is requested on less than 10% of the total e-mail traffic that Postini handles, usage of the protocol is trending up. "Once you turn it on, you never have to worry about it again," Lochart claims. "It's become a question of why wouldn't you turn it on?"

Give your help desk a break . . .

. . . and crack down on spyware. In a recent Gartner Inc. report, analyst Lydia Leong says some of her large corporate clients are reporting that as much as 25% of their help desk calls are coming from end users whose systems are overwhelmed with spyware. Andy Ostrom, director of marketing at InterMute Inc. in Braintree, Mass., says that's because there is so much spyware out there. Tens of thou-

35k

Number of spyware signatures in the current SpySubtract

sands of unique, tiny programs can hide inside your network, reporting to external sites on actions that

end users take in the course of their work — or, just as likely, while they're goofing around on the Internet. Ostrom says InterMute's SpySubtract Enterprise Edition, which will ship next week, cleans up spyware and then continues to defend your network from new variants that try to sneak inside the firewall. SpySubtract uses a central console so you can control the distribution of spyware elimination and management utilities to desktops. It also comes with reporting tools that let you see which workgroups or individual end users have the most unsavory spyware problems. Pricing starts at \$2,250 for 100 users.

"Information flows globally, but . . .

. . . people filter it locally."

That aphorism comes from Michael Chender, CEO of Co-emergence Inc. in Halifax, Nova Scotia. "Most companies don't have their knowledge organized beyond a shared disk drive," adds the pithy Chender. He says his company's ACIS knowledge management system provides a centralized "reservoir" of information that can be tuned for specific groups, locations or individuals. Version 5, which will ship in March, adds Microsoft Outlook and Office integration and includes a search engine. The average starting price for a site license is \$100,000. **51341**

\$1.3B

Knowledge management market in 2008, says Input

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IT Execs Take Different Paths To Align With Business Units

Some tout strong IT guidance; others let users take the lead on priorities

BY PATRICK THIBODEAU
HENDERSON, NEV.

SPEAKING before a group of senior IT executives last week, James Woolwine, CIO at Majestic Insurance Co., outlined a governance model that gives the insurer's business units the power to set his technology priorities. He then asked for questions. But there was silence.

Surprised, Woolwine challenged his audience: "I'm telling you that you should cede control of your business. You should be yelling at me."

But there was a reason why no one took issue with Woolwine's comments at the CIO 2004 Summit, which was held

here by London-based Marcus Evans Ltd. IT managers interviewed at the conference said they all share the same goal: aligning IT with the business side. And, they explained, the approach used by San Francisco-based Majestic Insurance wasn't criticized because of the widespread recognition that there's no single way to accomplish that goal.

For instance, Andres Carvallo, CIO at Austin Energy, said he thinks that a key to IT/business alignment is a very strong leadership style on his part. In dealing with the different business units that fight for IT dollars, Carvallo said his in-your-face approach is to tell business executives that

they will be more successful if they work with him.

The Austin-based utility company has steering committees that meet to help set IT strategy, but Carvallo said he also uses a heavily customized software tool to evaluate projects on a scale of 1 to 5. He analyzes a project's cost, its compliance with internal IT standards and its potential impact

on customer satisfaction and business processes — all against the backdrop of how it aligns with Austin Energy's strategic direction.

Bruce Petro, chief technology officer at AG Interactive, the Internet business unit of American Greetings Corp. in Cleveland, said he encourages

experimentation and wants to hire IT professionals from other industries to stimulate new ways of thinking and avoid the "inbreeding" of ideas.

The push for innovation helped AG Interactive's IT staff develop ways to meet sharp increases in Web traffic, according to Petro. He said the company's IT budget was so tight that it forced workers to

try different strategies, including a shift to the open-source MySQL database and the use of asynchronous processing.

Michael Prince, CIO at Burlington Coat Factory Warehouse Corp., has tried to establish the Burlington, N.J.-based retailer as a technology innovator. Burling-

ton Coat was among the first large companies to install Linux widely, and it's now deploying a Linux-based grid computing system.

But Prince said he thinks those projects have been possible only because of the trust the IT department has built with Burlington Coat's business users. Prince has been at the company since 1983, and many of his IT staff members also have long tenures.

"People have confidence that we know what we're doing," Prince said. Long-term employment in IT "adds something to a company's ability to be innovative and efficient," he added.

Despite the differences in the approaches they use, all the IT managers said that collaboration with business users is a crucial part of the push for alignment. "For IT to try to force business process change, that means resistance all the time," said Matthew Maguire, vice president of information services at Domino's Pizza Inc. **51384**



PRINCE says building the business side's trust in IT is key to project success.

IT Cost-Cutting Shifts to Software

Enterprises reduce licenses for servers

BY THOMAS HOFFMAN

After three years of cutting IT costs through server consolidation and selective outsourcing, enterprise IT shops are now focused on reducing software expenses, according to IT managers and analysts interviewed last week.

Several factors are contributing to this latest cost-cutting trend. For starters, as organizations shift from using groups of small servers to fewer, more powerful servers, fewer database and application software licenses are required for the machines.

In mid-2003, the city of Virginia Beach, Va., replaced five Intel-based servers that ran Microsoft Corp.'s SQL Server database system with two more-powerful clustered servers from Hewlett-Packard

Co., said Michael French, an IT asset manager for the city.

Virginia Beach, which is still in the process of upgrading from older SQL Server 7 databases to SQL Server 2000 systems, paid more in upfront licensing fees for the five-server configuration after shifting from an end-user-based licensing scheme to per-processor licensing, said French.

But even as the municipality adds more databases to support financial operations and other activities, it expects to achieve \$300,000 to \$400,000 in net cost savings over the next 18 to 24 months with fewer servers, he said.

Ripple Effect

Preparations to meet the regulatory requirements of the Sarbanes-Oxley Act are also having a ripple effect on software license consolidations. As some software publishers request that customers vali-

date compliance with licensing agreements, some audits are leading companies to discover active licenses for unused software. Companies are also finding out-of-date per-user licenses as workforces are cut or reworked.

"Enterprise customers are turning around and looking at this information to see where

SOFTWARE LICENSING

THE ISSUE: As hardware consolidation efforts end, enterprise organizations have started focusing on reducing software costs.

THE DRIVERS: Continued pressure on IT departments to cut costs.

THE RESULT: Reduction in software licensing and maintenance fees through consolidation, a decrease in support staff required, and the elimination of "shelfware" and redundant software.

they can further reduce their licensing costs," said Jenny Schuchert, vice president of program development at International Association of IT Asset Managers Inc., a Hartsville, Ohio-based user association with over 500 members.

"There's certainly been a bigger uptick in software license consolidation over the past six months," she said.

Rising software maintenance fees are also leading enterprise customers to more closely examine the number of licenses they have in place.

At Holiday Retirement Corp., a Salem, Ore.-based operator of senior citizen housing, all new software that's deployed must be budgeted with maintenance costs included, said CIO Steve McDowell. "As maintenance costs keep rising, we will have to look at other options, such as third-party maintenance [and] removing applications," he said.

Many IT managers have also discovered opportunities to slash software costs by re-

ducing the amount of shelfware, or unused software, within their organizations.

Lance Travis, an analyst at Boston-based AMR Research Inc., points to one manufacturing client that was able to save an estimated \$10 million to \$20 million at each of its six business units by reducing maintenance costs after eliminating unused software.

Companies are also becoming more aggressive about eliminating software duplications that came from mergers and acquisitions. An IT asset analyst for a large financial services company in the Midwest who requested anonymity said her firm is in the early stages of reviewing which software licenses it may be able to consolidate following a recent corporate divestiture.

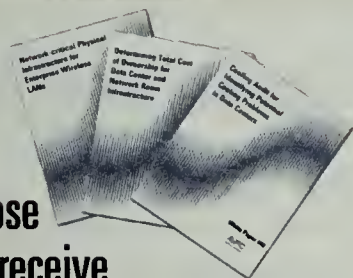
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SOFTWARE SWEEP

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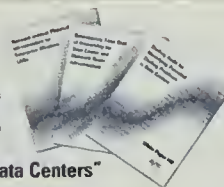
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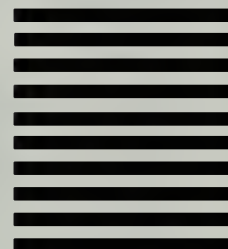
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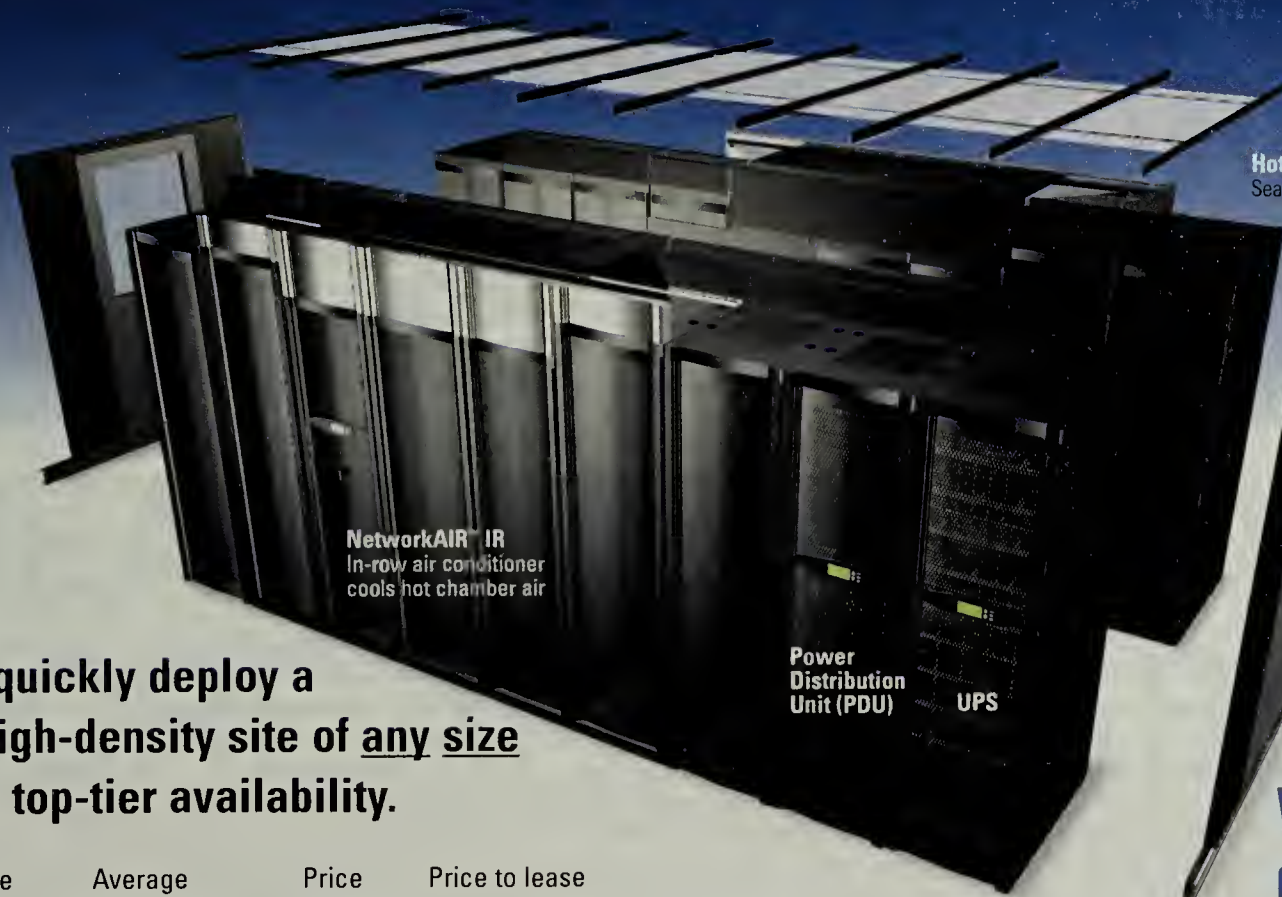
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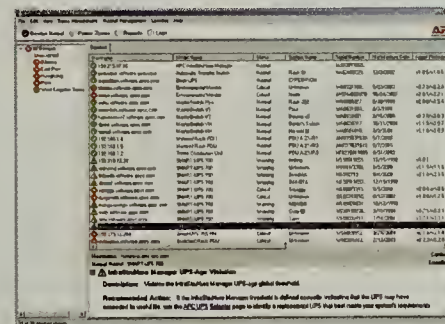
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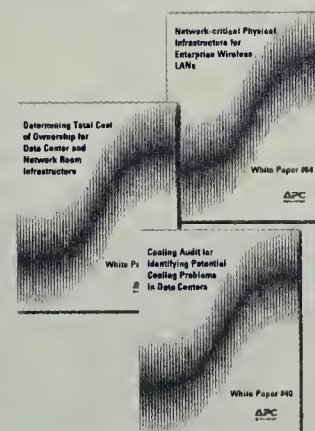
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BRIEFS

BT to Migrate Call Centers to VoIP

BT Group PLC last week said it will migrate its U.K. call centers to a new voice-over-IP system over two years. The system will allow 9,700 call center agents at 124 sites to work as one team in a single, virtual customer-contact center. BT will spend about \$5 million on new equipment from Nortel Networks Ltd. to replace private branch exchanges and call center software.

IBM Device Works For All EMC Arrays

IBM last week said its virtualization device, SAN Volume Controller Version 1.2.1, can manage EMC Corp.'s midrange arrays, the Clariion CX300, CX500 and CX700. With the addition of support for those products, IBM's SAN Volume Controller appliance can now manage EMC's entire line of storage arrays.

Vendors Join to Promote Grid

Last week, Dell Inc., EMC, Intel Corp. and Oracle Corp. announced that they are undertaking a joint effort to prove that grid technology can work in the business world. The MegaGrid project is hosted at Oracle's Global IT Data Center. The partners' first system clusters up to 28 Dell PowerEdge servers. The group will also publish guides for deploying and managing clusters running Red Hat Linux.

IBM Tests New Chip Technology

IBM last week said it tested a new technique for improving performance that will lead to smaller, more powerful chips over the next decade. IBM said it discovered a way to use germanium to improve the flow of electrons. Transistors built with strained germanium can have three times the performance of conventional transistors, the company said.

Fight Against Phishing Moves to a New Level

Consortium brings together companies, law enforcement to target e-mail scams

BY JAIKUMAR VIJAYAN

THE ANNOUNCEMENT last week of a new antiphishing consortium that includes financial services firms, Internet service providers, IT vendors and law enforcement agencies represents one of the most concerted efforts yet to curb the growing problem of e-mail data-theft scams.

The Digital PhishNet group includes companies such as Microsoft Corp., America Online Inc., VeriSign Inc. and EarthLink Inc., as well as government institutions such as the FBI, the Federal Trade Commission, the U.S. Secret Service and the U.S. Postal Inspection Service.

Phishing attacks use e-mail messages that appear to come from reputable companies to try to convince recipients to go to spoofed Web sites and disclose their credit card numbers and other personal information. The onslaught of attacks has prompted companies such as Barclays Bank PLC and eBay Inc. to adopt new technology designed to detect phishing scams and help consumers verify the authenticity of Web sites [Quick-Link 49944].

Better Information Flow

Digital PhishNet's goal is to enable a better flow of information about phishing attacks between companies and law enforcement agencies, said Dan Larkin, unit chief at the FBI's Internet Crime Complaint Center. Because phishers can rapidly create and dismantle phony Web sites, "the key to stopping them is to identify and target them quickly," Larkin said. "Our industry partners have a unique perspective regarding these schemes and how they look

early on that we in law enforcement don't always have."

Companies have to "spoon-feed" government agencies a lot of the information that's needed to go after phishers, said Avivah Litan, an analyst at Gartner Inc.

"Law enforcement is not really equipped to deal with these cybercriminals," she said. "They don't have the technical skills or the staff."

Between July and October, the number of known phishing Web sites grew by an average of 25% per month, with 1,142 active sites reported in October, according to the Anti-Phishing Working Group (APWG).

Litan said that in the 12-

month period that ended last April, fraudulent activities resulting from phishing attacks cost victims a total of \$1.2 billion, with U.S. companies bearing most of those costs.

Digital PhishNet isn't the first industry group created to fight phishing. The APWG says its membership includes more than 650 companies plus law enforcement agencies from the U.S. and three other countries. In addition, the New York-based Financial Services Technology Consortium (FSTC) in September announced an antiphishing initiative involving nearly 30 financial institutions and IT vendors.

But a key difference is Digital PhishNet's emphasis on enforcement activities, said Dave Alampi, vice president of marketing at Digital River Inc., an

Group Polishes Guidelines On HIPAA Security Rules

Seeks to ease the implementation of controls on data

BY JAIKUMAR VIJAYAN

A working group made up of members from three organizations plans this month to release guidelines for complying with the data security requirements of the Health Insurance Portability and Accountability Act (HIPAA).

The clock is ticking for health care companies to comply with HIPAA's security provisions, which will take effect in April. The Healthcare Security Workgroup began developing the compliance guidelines in November 2003 and was originally supposed to release them around the middle of this year. But the complexity of pulling the needed information together delayed the project, said Devin Jopp, chief

operating officer at URAC, a nonprofit accreditation agency for the health care industry. "It's taken a lot of lifting," Jopp said. "It was ambitious, but the group has finally been able to put it together."

The Healthcare Security Workgroup includes representatives from Washington-based URAC, the Workgroup for Electronic Data Interchange (WEDI) in Reston, Va., and the National Institute of Standards and Technology, which is part of the U.S. Department of Commerce.

Data Protection

HIPAA's security rules, which were published in *The Federal Register* in April 2003, specify administrative, technical and physical measures that companies have to implement to protect confidential patient data.

Jopp said the working group's compliance guidelines

Phishing Fighters

Digital PhishNet: Formed last week to focus on identifying, tracking and shutting down phishing operations.

FSTC Counter-Phishing Initiative: Launched in September to define technical and operating requirements for antiphishing measures by financial services firms.

Anti-Phishing Working Group: Set up last year to create broader awareness of the phishing problem.

Eden Prairie, Minn.-based company that develops and runs e-commerce sites. "The reason this alliance was formed is not just to raise awareness of the problem but to take a proactive stance in tracking [phishers] and shutting them down," he said.

Judy Lin, an executive vice president at Mountain View, Calif.-based VeriSign, said Digital PhishNet will also investigate ways of legally using technology to bring down sites used to launch phishing attacks. **51390**

are based on a variety of sources, including best-practices documents, case studies and standards efforts by organizations such as the Healthcare Information and Management Systems Society.

The guidelines are meant to give IT and business managers "a better feel for what it will take to comply" with the HIPAA rules, said Mark McClaughlin, a Dubuque, Iowa-based regulatory policy analyst at McKesson Corp. McClaughlin is an adviser to the WEDI and co-chairman of the security working group.

Such guidance could be potentially useful, especially for smaller health care organizations that might be struggling to understand HIPAA's requirements, said a former member of the working group who requested anonymity.

"The problem with the security rule is that it isn't easy to implement," he said, adding that many companies "are looking for someone to tell them, 'Here's how to do it.'"

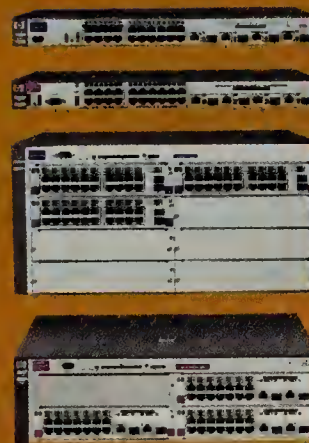
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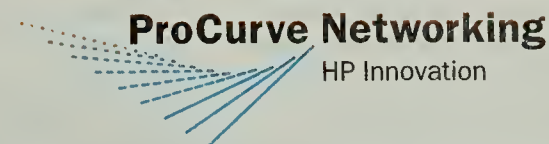
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GLOBAL DISPATCHES

An International IT News Digest

'Zinc Whiskers' Vex Aussie Data Centers

SYDNEY

TWO GOVERNMENT AGENCIES — the Australian Taxation Office and the Australian War Memorial museum — have recently warned of a bizarre metallic syndrome called “zinc whiskers” that knocked out their data centers’ power.

Zinc whiskers are filaments of zinc, only microns in diameter, that grow on the underside of aging, galvanized floor tiles. When sucked into data center cooling systems, the whiskers can cause short circuits in computer power supplies and sensitive circuitry.

War Memorial IT manager Daryl Winterbottom said his data center experienced repeated power outages that were eventually traced to zinc whiskers. “You can shine a torch on the underside of an old floor tile and see the whiskers vibrating,” he said. The War Memorial’s problem was resolved with the installation of zinc-free tiles.

IT consultant Garry Karklins also rids data

centers of the scourge. “What you have are pure zinc stalactites that sit undisturbed under floor tiles, and once they ... circulate, you have a game of Russian roulette,” he said.

■ MICHAEL CRAWFORD,
COMPUTERWORLD TODAY (AUSTRALIA)

IBM Wins \$1B Deal For Lloyds Network

LONDON

IBM last week said it has won a seven-year, \$972 million contract to move London-based bank Lloyds TSB Group PLC from its existing voice network to a fiber-optic voice/data set-up. The deal will put 2,000 Lloyds branches and 4,200 automated teller machines on a dedicated fiber network using Digital Subscriber Line and Multiprotocol Label Switching technologies. IBM said Lloyds’ branches will gain eight times their current network bandwidth at a quarter of the price.

It’s one of the largest voice-over-IP projects in Europe, with almost 70,000 VoIP phones due to be installed. IBM said

GLOBAL FACT

Postini Inc.
in Redwood City,
Calif., plans to expand
into Europe because the
spam-filtering market in
the U.S. is saturated.

SOURCE: QATAMONITOR PLC, LONDON

the initiative will take advantage of the wealth of unused fiber in the U.K. The switch will occur over 20 months and is partly designed to demonstrate how large banks and retailers can benefit from moving to converged fiber-optic networks, said an IBM spokesman.

■ SCARLET PRUITT, IDG NEWS SERVICE

Siemens Sets Wireless Data Speed Record

DÜSSELDORF, GERMANY

SIEMENS AG claimed last week that it has set the world speed record for wireless data transfer. Siemens said its Munich research lab achieved a wireless transmission rate of 1Gbit/sec. by combining an “intelligent antenna system” with Orthogonal Frequency Division Multiplexing (OFDM) technology.

The combination of multiple antennas and OFDM makes very efficient use of the radio spectrum while minimizing interference. Siemens used a system of three transmitting and four receiving antennas to simultaneously send different flows of data over the same radio channel and frequency band. The company predicted that the fourth-generation wireless technology will be needed for high-bandwidth applications beginning in 2015. ☎ 51334

■ JOHN BLAU, IDG NEWS SERVICE

Compiled by Mitch Betts.

Briefly Noted

BT Group PLC announced this month that it will take control of Al-bacom SpA, one of Italy’s first alternative telecommunications operators, by buying out its three partners for about \$153 million. BT will acquire the 74% of Milan-based Al-bacom that it doesn’t already own so it can offer expanded European coverage to corporate customers.

■ LAURA ROHDE,
IDG NEWS SERVICE

IBM on Dec. 3 announced a four-year, \$34.3 million deal to overhaul systems at 14 hospitals, 107 clinics and 300 local doctors’ offices in Spain’s Extremadura region.

■ SCARLET PRUITT,
IDG NEWS SERVICE

Grande Island Resort in Subic Bay in the Philippines said it has rolled out a \$107,000 voice-over-IP system from Cisco Systems Inc. The new technology is expected to lower the resort’s interoffice long-distance costs by as much as 80%, said IT manager Julius Buen.

■ LAWRENCE CASIRAYA,
COMPUTERWORLD PHILIPPINES

Continued from page 1

Spreadsheets

unveil a new version of its e.Spreadsheet reporting software that can provide auditable and repeatable processes to spreadsheets. And last week, Oracle Corp. rolled out a new stand-alone business intelligence product featuring an Excel plug-in to ensure that data is obtained directly from corporate databases.

Actuate added a “cell locking” feature to allow report designers to password-protect specific cells in a spreadsheet. Data can be distributed to users for controlled analysis without compromising operational data and business logic, said Mike Thoma, vice president of marketing at South San Francisco-based Actuate.

“Politically, it’s devastating to take away the spreadsheets

from the end user,” Thoma said. “But on the other hand, you don’t want to go to jail.”

CheckFree Corp., a Norcross, Ga.-based electronic bill payment and banking services company, began using the e.Spreadsheet tool this year.

“The finance department was trying to get data ready to publish [for Wall Street], manually querying sources and pulling data together in spreadsheets,” said Kevin McDearis, CheckFree’s vice president of data and delivery. “They were quite nervous about that.”

But e.Spreadsheet applied consistent business rules to the data to avoid compliance problems, he said.

Odom’s Tennessee Pride Sausage Inc. in Madison, Tenn., will use Actuate’s cell-locking capabilities to provide sales and marketing employees with access to sales data that can be

shared with customers and brokers, said Michael Hader, Odom’s IT manager. “Re-entering data into Excel means they could get the wrong data for the wrong product in the wrong spot,” he said.

Avoiding Discrepancies

Users at other companies have further distanced themselves from spreadsheets to avoid potential data discrepancies.

Textron Inc., owner of Cessna Aircraft Co. and Bell Helicopter, uses Hyperion Solutions Corp.’s Financial Management software for collection, reporting and analysis of its global financial data. The system generates more than 1,000 reports that give users needed data without the use of spreadsheets, said Larry Costello, director of financial information systems at Providence, R.I.-based Textron. “They don’t have a chance of

calling the wrong cell,” he said.

At The Tile Shop LLC, a Plymouth, Minn.-based tile retailer, the widespread use of spreadsheets meant that only the controller had a “magical spreadsheet” with the correct cash and balance-sheet data, said Gerald Baltrusch, the company’s IT director.

“Excel is the cocaine of finance,” he said. “Once you start using it to calculate your final numbers, you can’t stop.” To alleviate the problem, the company’s new chief financial officer forced the finance department to generate data directly from its J.D. Edwards & Co. applications.

“It was painful, but he stuck to his guns and broke us free of the Excel drug,” Baltrusch said. “We began to have one version of the truth.”

The problem of reining in spreadsheets is so massive that many IT managers have

given up hope, said Wayne Eckerson, director of research at The Data Warehousing Institute in Seattle. “Spreadsheets are a huge temptation for users who feel frustrated that IT can’t give them the data they want,” he said.

Ideally, only IT should collect, integrate, distribute and manage the data in spreadsheets, with users being allowed to view the data and update it with proper authorization from IT, Eckerson said.

“Solving the problem requires the business and IT to become more aligned and each to better understand and respect what the other side does and its requirements,” he added. ☎ 51389

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The Power to Know.



Continued from page 1

Cisco

Cisco's Worldwide Analyst Conference here said that in recent months, the networking market leader has lowered some of its prices by a small amount or improved the performance of products without increasing their cost.

And two longtime customers said in phone interviews that they think Cisco has made steady strides on improving the price/performance characteristics of some products, although they added that there's still plenty of room for improvement in pricing on devices such as memory cards and peripherals for voice-over-IP phones.

"I'm of the opinion that generally speaking, Cisco's prices are improving and I get more for my money," said Matt Valenzisi, network man-

ager at North Carolina State University in Raleigh. He said that's especially true for stackable switches such as Cisco's Catalyst 3750 product line, probably because Cisco has to compete against many other vendors in that segment of the market. The university plans to buy 22 Catalyst 3750s in the next few months, adding to its installed base of about 2,000 switches from various vendors.

In contrast, Valenzisi said he's alarmed by what he has to pay for memory upgrades to Cisco's switches and switching modules — something he routinely adds to purchases from Cisco to ensure interoperability. For example, he said, Cisco recently charged him \$10,000 for a 1GB memory upgrade for an optical services module — many times what he expected to pay. "Their memory pricing is way too high," Valenzisi said.

A network manager at a health care provider with 6,000 workers said his company is getting an increased amount of services on core infrastructure products from Cisco, such as its switches and routers, for the same prices that it was paying before.

But the user, who asked not to be identified, added that Cisco's prices "are still very high" for devices such as VoIP phones and their batteries and cables. A wireless VoIP phone can run well over \$1,200 with all the added gear that end users need, he said.

Pricing Pressures

John Chambers, Cisco's president and CEO, acknowledged in an interview that users frequently voiced concerns about pricing when he talked to them in the past. However, Chambers said the complaints have stopped since he began conducting quarterly reviews

Generally speaking, Cisco's prices are improving and I get more for my money.

MATT VALENZISI, NETWORK MANAGER, NORTH CAROLINA STATE UNIVERSITY

of pricing and new-product development two years ago (see Q&A below).

Earlier this year, some IT managers said they were willing to pay premium prices for Cisco's products because of its financial stability, reliability and strong customer service [QuickLink 46376].

But Gartner Inc. analysts Mark Fabbi and Bob Hafner have written several reports over the past year urging users to seek rival bids in order to push Cisco's sales force to make more competitive count-

eroffers. That strategy seems to be working for users, according to Fabbi. "There's a lot more response by Cisco on competitive bids than a year ago," he said last week.

Fabbi added that Cisco seems to be paying more attention upfront to the prices it's charging, especially with its biggest users. "Cisco realizes they can't take customers for granted and has been proactive with discounts," he said.

Zeus Kerravala, an analyst at The Yankee Group in Boston, said that Cisco's prices "are still an issue with customers." Kerravala agreed with Chambers that there has been some improvement, but he added that it's very hard to quantify.

51392

WHAT'S NEXT

Cisco officials gave a broad outline of new technologies the company is working on:

QuickLink 51394
www.computerworld.com

Chambers Eyes Rivals in Asia, Says Pricing Not an Issue for Users

Friday was the 20th anniversary of Cisco Systems' founding. John Chambers, the company's president and CEO, said during his keynote speech at last week's Worldwide Analyst Conference that Cisco "has become an adult." Later, in his San Jose office, Chambers spoke with *Computerworld* about the networking industry, pricing issues and Cisco's new technology initiatives.

In Cisco's last quarterly results call, you talked about the coming competition from Asian vendors. What's happening there, and why? I believe the best competitors globally will come from an environment that has a combination of three things. First, an extremely good education system that focuses on computer sciences, math and basic science. China, as an example, graduates 25% of its university graduates in these areas. We in the U.S. have less than 10% of our master's students go into

these areas. Second, they have built a very competitive infrastructure. Third, they have an unusually supportive government, not just on issues such as education and an easy environment to do business in, but on stock options and other things. I find it ironic that the U.S. invented the sharing of the success of a company with its employees very broadly. Now we have other countries around the world that beat us not only in education and infrastructure, but also in terms of employee ownership.

At the conference, some analysts said Cisco seems to be reacting to criticism about high costs by dropping prices a bit on some products. What have you done on pricing? We tended to move in the past based on what our peers did in the indus-

try, or on [the rollout of] a new generation of products. Then we made the decision almost two years ago that we were going to focus on designing our products in less time than Moore's Law of 18 months and on making pricing changes to almost every product line at a pace of Moore's Law or faster — regardless of what the competitors did.

So every quarter, I sit down with Mario Mazzola, our chief development officer, and we go through all our products and say, "Where are we in the last 12 months?" And I ask, "Are we either announcing products with dramatically higher price/performance or announcing cuts in prices for the current products?"

We listened to our customers and, candidly, the industry press as well about pricing. This was an issue of fact, not of perception. But now we are being very open and talking about what has occurred on price/performance. I haven't had that issue raised in a customer

call in a very long time. Looking back a year or two, by contrast, it might be raised in a customer call every third or fourth time.

There's a lot of speculation about the new technologies that Cisco will pursue beyond those you already offer. Any hints? When we move into a new advanced technology, we'll keep it relatively in stealth mode until we're ready for our customers to see it and get the feedback. But [we] have also been very open in the last three to four months about what we're going to do in the data center.

Our role in much of the virtualization of services and applications and resources plays perfectly for that area because you really want [access to data] to be transparent regardless of the type of device you have in your hand. That's what routing is really about. So the data center is a logical extension move.

Will the new data center offerings be done through partnerships? It will be through partnerships, internal development and acquisitions — all of the above.

You've also mentioned the possibility of getting into the market for Layer 4-7 switching. Will that be the case? The lines between Layers 1, 2, 3 and 4 are blurring very rapidly. The same is true as you go up the stack to Layer 7 for applications.

If you look at our network evolution, the first phase of where we're going to go for intelligent information networks is the movement of voice, data and video over combined networks. The second phase is this virtualization of services and resources.

And the third phase is this one of application-aware networks, which has huge implications in terms of the doors that it opens up. While this was pretty controversial two years ago when we started down this path, not many people disagree with the concept. The question is how far it will go and the level of implementation.

— Matt Hamblen



JOHN CHAMBERS:
"We listened
to our customers
... about pricing."

MORE ONLINE

Visit our Web site for an extended version of the John Chambers interview:

QuickLink 51351
www.computerworld.com

YOU MAY NOT HAVE TIME TO STUDY THE TCO OF WINDOWS AND LINUX, BUT THE YANKEE GROUP DOES.

"For midsized and large organizations, a significant Linux deployment will neither be free nor easily accomplished. In fact, respondents at large organizations reported that a wholesale switch to Linux from Windows® or Unix would significantly increase TCO for the foreseeable future."

*—Laura DiDio, The Yankee Group, April 2004
Linux, Unix, and Windows TCO Comparison*

The Yankee Group, a global research and consulting firm, concluded that a significant switch to Linux from Windows or Unix could cost three to four times as much without delivering tangibly better performance or business value. These findings are based on a non-sponsored worldwide survey of 1,000 IT administrators and C-level executives in midsized and large enterprises.

To get the full study, visit microsoft.com/getthefacts

Life-Cycle Software Vendors Woo Small, Midsize Businesses

Several are forming alliances, offering more affordable, simplified tools

BY JAIKUMAR VIJAYAN

VENDORS ARE making product life-cycle management (PLM) software easier to deploy and use as interest in the technology grows in small and medium-size businesses.

For example, under a five-year partnership between Microsoft Corp. and Dassault Systemes SA announced last month, Dassault's 3-D SolidWorks products and its PLM software offerings such as Catia, Delmia and Enovia will be integrated with Microsoft's SQL Server, BizTalk Server, SharePoint Portal server software and .Net products.

The integrated products will allow manufacturers to more easily create, edit and share product-related information and 3-D drawings between Microsoft and Dassault environments, said John Squire, vice president of marketing at Suresnes, France-based Dassault.

Such interoperability is crucial to spurring adoption of PLM among small and midsize manufacturers, which tend to be Microsoft-centric, said Don Brown, managing partner of Collaborative Product Development Associates LLC in Port Chester, N.Y.

Dassault isn't the only company attempting to broaden the appeal of PLM products. Also last month, Parametric Technology Corp. in Needham, Mass., disclosed plans to use an IBM on-demand service center to deliver a hosted PLM service for small and medium-size businesses. The service allows those companies to use PTC's Windchill product management software under subscriptions starting at \$100 per month.

Meanwhile, Agile Software Corp. launched its Small and

Medium Enterprise initiative in October. The San Jose-based vendor is offering a hosted PLM service and a prepackaged PLM suite for smaller businesses.

In September, MatrixOne Inc. in Westford, Mass., announced the integration of its PLM suite with Microsoft's Office environment, with an eye toward spurring broader adoption of its products.

Gaining Attention

Such moves come at a time when adoption of PLM technologies — traditionally used only by very large companies — appears to be gaining attention in smaller manufacturing firms, said John Moore, an analyst at ARC Advisory Group Inc. in Dedham, Mass.

According to a report released this fall by Boston-based AMR Research Inc., companies that have annual revenues of less than \$1 billion will invest more than \$5 billion in PLM technologies by 2008 in an effort to gain more control over their product information.

"Vendors are starting to realize the market potential of

small and medium businesses," said Stephen Segal, CIO at Loewen Inc., a maker of high-end custom windows in Steinbach, Manitoba. "We are seeing Tier 1 vendors repackaging and offering high-end tools that had been developed and available only for complex markets."

Loewen is in the midst of deploying Dassault's PLM

technology to its engineering and design groups. Eventually, the company plans to use PLM to expose product information to workers in its sales and marketing groups, as well as to customers.

"We couldn't even look at PLM two or three years ago" because of its complexity and costs, Segal said.

EV3 Inc., a Plymouth, Minn.-

based maker of cardiovascular equipment, is also taking advantage of MatrixOne's industry-specific PLM packages to implement a capability for managing product development information through its entire life cycle.

MatrixOne's support of functions and processes specific to the medical device market, including templates for complying with U.S. Food and Drug Administration and European Union regulations, has made the technology relatively simple to deploy, said EV3 CIO Pete Schaubach.

Q 51318

IBM Security Chief Focuses On Compliance, Cyberattacks

McIrvine promises tighter integration of services and security products

BY JAIKUMAR VIJAYAN

As director of corporate security strategy at IBM, Stuart McIrvine is responsible for developing its overall road map for IT security products, services and partnerships.

McIrvine's job, which he took on in mid-October, involves managing a team that coordinates security-related initiatives across IBM's hardware, software, services and research groups.

McIrvine spoke with Computerworld last week about IBM's security offerings and plans.

What's your role at IBM? I have the responsibility for the development and enhancement of IBM's corporatewide security strategy — that is, a strategy to address the way the market sees security, wants to buy security [products and services], etc. From an internal perspective, it's very focused on aligning all the pieces we have.

What do you see as some of the key drivers of companies' IT secu-

ity agendas? One of the main things is regulatory compliance, whether it's cross-industry regulations or industry-specific ones. Controlling access to systems, especially financial systems, [and] being able to provide audit trails are important.

Another big area is just basically preventing business damage from cyberattacks — the loss of productivity and the loss of revenue.

Another thing that customers are looking at is really how to cope with multiple communication mediums, such as the Internet, VoIP and wireless, combined with the multitude of devices that people are using to gain access to these [systems].

What is IBM doing to help IT managers address such issues? We have a business unit that's just focused on risk and compliance. They've developed a framework that is providing guidance for all of [the] regulatory compliance [needs of companies].

Customers can drill down on a specific regulation such as [the Sarbanes-Oxley Act], and we'll show particular focus areas of that regulation and map that to our portfolio.

What about helping them deal with cyberattacks? We have about half a million devices worldwide that monitor [network] trends. Approximately 2,700 IBM security professionals analyze the information that comes out of those monitors and provide daily reports and recommended action to help our customers.

What do you see as IBM's value-add over pure-play security

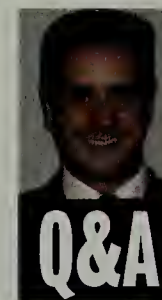
vendors? IBM is looking at security not as an IT problem, but as a business problem. It's not just a case of focusing on firewalls and viruses.

We're investing heavily in security management, access

management, identity management, patch management and federated ID management. A lot of that is around our Tivoli business.

What can users expect to see from IBM over the next year or so in terms of security products and services? It's really about tighter integration across our portfolio. You'll see a number of new management services, enhancements to our security management software portfolio and better integration across different departments providing security products. You'll also see a lot more focus on putting more security [capabilities] into the hardware.

Q 51319



How PLM Vendors Are Courting Smaller Firms

■ **Parametric Technology** launched an on-demand subscription-based PLM service starting at \$100 per month.

■ **Agile Software** has launched specialized packages and hosted PLM services.

■ **IBM** offers PLM Express products for midsize companies in various vertical industries.

■ **MatrixOne** integrated its PLM suite with Microsoft's Office to attract smaller companies.



When Microsoft invests sixty billion dollars, they don't use just any processor.



To manage this much money, you need a solution that offers optimum performance and real-time flexibility. Microsoft found both in the AMD Opteron™ processor running Windows Server™ 2003, Enterprise Edition. The AMD Opteron processor with its Direct Connect Architecture already powers the world's highest performing 2-way and 4-way x86 servers. Now Microsoft Treasury managers are using it to slash the time it takes to run their complex risk-analysis software. Meanwhile, they have the flexibility to go from 32- to 64-bit applications without disrupting their business. At AMD, we believe it's critical that technology should migrate on your terms to help you realize your unique vision. It's one of the reasons why leading OEMs offer enterprise-class solutions powered by AMD Opteron processors. Would you like to learn just how much of a difference they can make to your company? **Go to www.amd.com/enterprise**

MARK HALL

Welcome, China

SERIOUSLY. When IBM entered the personal computer business in 1981, Apple Computer — then the dominant market leader and maker of the Apple IIe line of desktop machines — ran a full-page advertisement in *The Wall Street*

Journal with the screaming headline: “Welcome, IBM. Seriously.”

I’m guessing we’ll see no such ads from Hewlett-Packard or Dell greeting the arrival of China’s Lenovo Group after its \$1.25 billion deal to buy IBM’s PC business. That’s because unlike Apple Computer’s smug marketers of the early 1980s (and, need I say, beyond), HP and Dell know there’s no reason to anger a dragon moving into your neighborhood.

Lenovo’s acquisition is part of a long-term strategy by the company and its backers to become a major IT player in the West. It changed its name officially this year from Legend after it encountered too many trademark problems in Western countries. Executives knew that the new name had to be easy for English speakers to pronounce. I think they did a pretty fair job with “Lenovo.”

The company is also working with the Chinese government to take a prominent role during the 2008 Beijing Summer Olympics. That’s because it rankles government and business leaders that China hasn’t produced even one global brand. The nation may be a global economic powerhouse, but none of its products are household names.

Lenovo plans to use the Olympics to help turn its name into something closer to, say, Coca-Cola or Nestlé than, well, Lenovo is today. But before it can buy endless spots on NBC Sports to promote itself, Lenovo must have something the world wants to

buy. Hence, the agreement with IBM.

Whether Lenovo can succeed with IBM’s PC line or not, China is making it clear that it wants your business — the enterprise IT business. It wants to create a corporate brand that you will believe in, because collectively your budgets pack a global wallop, one that can carry a company

to worldwide brand status quickly.

Lenovo gets to use the IBM brand and assorted trademarks for five years. Expect to see lots of promotional material touting “the Lenovo ThinkPad” or “the IBM PC from Lenovo” for a couple of years. But by the time the pole vaulters and the sprinters have finished touring the Great Wall and have started compet-

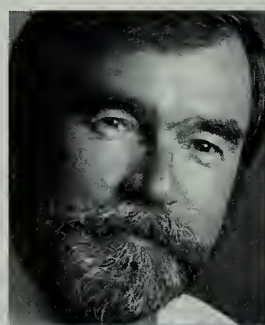
ing in 2008, Lenovo hopes to have scrapped the IBM crutch and taken on HP and Dell with its own moniker.

The immediate benefit of this deal for IT is that Lenovo knows how to build cheap PCs. Today it sells a decent little machine for \$360. It can apply its manufacturing prowess to benefit you. But Lenovo can’t expect to become a global brand simply by putting an IBM product in your hands for a few bucks less. If that’s the company’s game plan, figure it to lose big in its global branding gamble.

Lenovo needs to innovate. IBM’s PC group has been lackluster of late, slow to embrace tablets and adopt laptop features that users appreciate. If Lenovo advances the state of the art on PCs by integrating features that IT craves, such as security and reliability, while holding costs down, it stands a good chance of holding on to existing IBM PC buyers and winning new ones to the Lenovo brand.

If Lenovo fails to innovate and extend its IBM line, IT may very well withdraw its welcome mat. And China will need to restart its global brand strategy from scratch. **51320**

Don Tennant is off this week.



MARK HALL is a Computerworld editor at large. You can contact him at mark_hall@computerworld.com.

VIRGINIA ROBBINS

The Industry We Save Could Be Our Own

BETWEEN MEETINGS, I was catching up on my reading when this title caught my eye: “Can IT Save This Industry?” I’d never heard of IT saving a company, let alone an industry. After scanning the first page and finding very little that had to do with IT, I reached for the phone and called my company’s head of marketing. She’s a London School of Economics graduate and a former Andersen employee, so I knew I could count on her for a quick and thoughtful comment.

After exchanging a few pleasantries and warning her that my question didn’t have anything to do with work, I told her about the article that had caught my attention and asked her if she knew of a case in which IT had saved an industry or a company. Five seconds of silence followed. I had to smile, and I told her that her answer wouldn’t change the priority of our projects for marketing. She laughed, but then she said, “Those titles just irritate me. Management is what saves companies; leadership is what saves industries. IT is an enabler.”

We spoke about Peter Drucker, James Collins and others whose research demonstrates that it’s all about management. We both had meetings to run to, so I thanked her and hung up.

Why had my colleague found that article’s title so irritating?

A few weeks ago, I had the opportunity to fill in for our chief executive at a student-loan-industry CEO conference. It was a small gathering, and I was able to meet most of the CEOs in attendance. Upon identifying myself as a CIO, I would receive one of two responses. Former CIOs launched into discussions about changes in the student loan industry; non-CIOs pulled me aside to confide that if there was one area of their businesses that they



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worried about, it was technology.

What concerned the CEOs was that their businesses were completely enabled by technology; without IT, they couldn't compete. It wasn't that their IT groups were incompetent or that they had any immediate problems, but as lawyers, CPAs and former salespeople, the CEOs' skills lay in protecting and growing the business. They feared that the very expensive IT recommendations they were approving weren't going to be beneficial. They needed their IT staffs to understand them and their businesses in addition to knowing IT.

I think that when we in IT make claims such as "IT can save this industry," other executives question our understanding of what makes businesses succeed.

As CIOs, we spend much of our time working to retain and improve alignment between IT and business. In part, we do this by translating. We translate business goals into IT projects or metrics and, conversely, translate improvements in IT into business opportunities. Sensational words in article titles that irritate or create doubt rarely help translators.

Yes, it was only the title of an article, a few words that were probably chosen to attract readers. Yet whenever we use words that irritate and raise doubts about our skills, we reduce our effectiveness and harm ourselves and our industry. Let's be the best we can be and choose words that reinforce in the minds of our peers and our CEOs that we have the business knowledge they expect of us. **51241**

MICHAEL
GARTENBERG

Longhorn, Blogs, Linux: Predicting '05

IT'S THAT TIME of year. LEDs flash with holiday cheer, and pundits pontificate about what will happen in the coming months. So once again, it's time for me to offer my predictions for the new year.

1. Longhorn is no longer the answer (or even the question). There was too much Longhorn hype in the past year and not enough details. Look for Microsoft

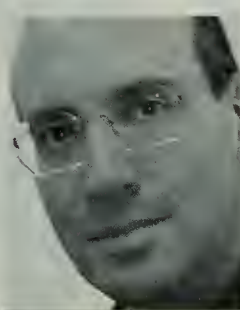
to retreat from the "It will be fixed/added in Longhorn" mantra and make more attempts to keep the focus on Windows XP.

2. PDAs will become passé. Disconnected ones, that is. Over time, the real action will be moving core PDA functionality, centered on personal information management, to other devices such as cell phones. This will cause major IT headaches, since few cell phones are controlled by IT these days.

3. More people will lose their jobs over their weblogs. It's happened already, and it will happen again. If you're posting about your job or employer without consent, you're taking a lot of risk with your future.

4. But more corporations will create official blogs. Corporations have seen the weblog light, and blogs will become common for business use. Unfortunately, far too many of these efforts will just be marketing fluff disguised as weblogs.

5. Security FUD will drive IT policy. With all the fear about people using iPods



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and flash memory devices to walk off with corporate data, IT will be forced to take more Draconian measures against users. Expect to see rigid policies about commingling personal and business technologies, and bans on USB flash disks and the like.

6. Wi-Fi will be ubiquitous, but not in the workplace. Wi-Fi is readily available in public places such as coffee shops, airports and hotels. IT shops, however, will slow deployments a bit over fears of security. End users will take matters into their own hands, so expect to see lots of ad hoc networks springing up.

7. VoIP will be a mainstream technology for business users. Voice over IP is perhaps the hottest technology in the telecommunications industry today. VoIP-based services will grow even more as a mainstream technology for business use. Expect a lot of competition for the trillions of minutes and billions of dollars' worth of voice calls that business users make each year.

8. Wireless VoIP will still be niche. The hype and press around voice over

wireless LANs was significant in 2004. Expect more hype and some pilot programs, but not large growth for VoWLAN.

9. Linux will be adopted in greater numbers by IT, but desktop Linux will not. Linux is already a mainstream server solution for many IT shops. That success won't travel over to the desktop, however. Too much fragmentation, combined with a lack of critical desktop applications and increasing dependence on the Windows platform, will prevent desktop Linux adoption from increasing significantly.

10. Moore's Law will still be irrelevant. Just as in 2004, speed increases are nice, but they will remain hard to justify for most business users, for whom "fast" was "fast enough" around 1999. The most relevant market for fast PCs will be consumers who need all the speed they can get in their digital homes for entertainment.

Most importantly, may we all reap the benefits of technology in a new year filled with peace, prosperity and positive growth. Best wishes for the holidays, and see you in 2005. **51138**

WANT OUR OPINION?

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READERS' LETTERS

Are You Over It?

I HAVE A FEW PROBLEMS with Don Tennant's column "Get Over It" [QuickLink 50699]. First, the attitude expressed in the title and the column itself is unprofessional. I expect to be better served by a journalist. Second, anyone with experience of real-world corporate IT knows that, as often as not, management makes shortsighted decisions about outsourcing. Shaving money off a budget for a financial year, or even for only a quarter, is sometimes all that matters to management. Third, *complain* and *whine* are two different words. Accusing laid-off IT workers of whining is not only insulting, it is also inaccurate. I wonder how you might react if suddenly *your* job were farmed out to someone half your age making pennies to your dollar.

Ken Shelby
Somers, N.Y.

I'LL NOT GET over it! Not as long as I can get around it, anyway. I

have remade my career, moving from being an electronic technician to providing desktop and network systems service. I'm quite proficient with the TCP/IP suite, intimate with Unix and Windows, reasonably conversant with Macintosh (well enough to fix them and tune their performance) and can kill off spyware and viruses manually if necessary.

Is outsourcing good? In some cases, I'm certain it is. In others, it isn't. The planning and implementation of it is what is important. It's important to study whether outsourcing truly is a good fit with the business needs and if the outsourcing vendor is stable and knowledgeable. "It's what our competitors are doing" isn't a good enough reason.

I think the worst of this trend is behind us. Now we're into a rebalancing phase. In 10 years, this will be a mere footnote in the IT history books, whereas it currently is a painful experience. The pendulum will swing back and forth, then find the balance of necessity and utility.

Well, back to finding a new job, since my last contract ended up outsourced to a fully staffed company.

Stephen P. Villano
Philadelphia

MOST OF THE discussions about IT outsourcing are based on one fatally flawed concept: that American businesses still do actual cost-benefit analyses when choosing a course of action. The idea that a company will sacrifice this quarter's earnings for future benefits is, as Alberto Gonzales said about the Geneva Convention, "quaintly obsolete." Management makes all the right noises – "Quality is No. 1" and "We strive for excellence" – but the message that gets delivered down the chain is, "Get it done fast and cheap, and we'll worry about the fallout later."

About 15 years ago, top executives and boards of directors in U.S. corporations for all practical purposes went into business for themselves. Between their stock-option plans, obscene compensation

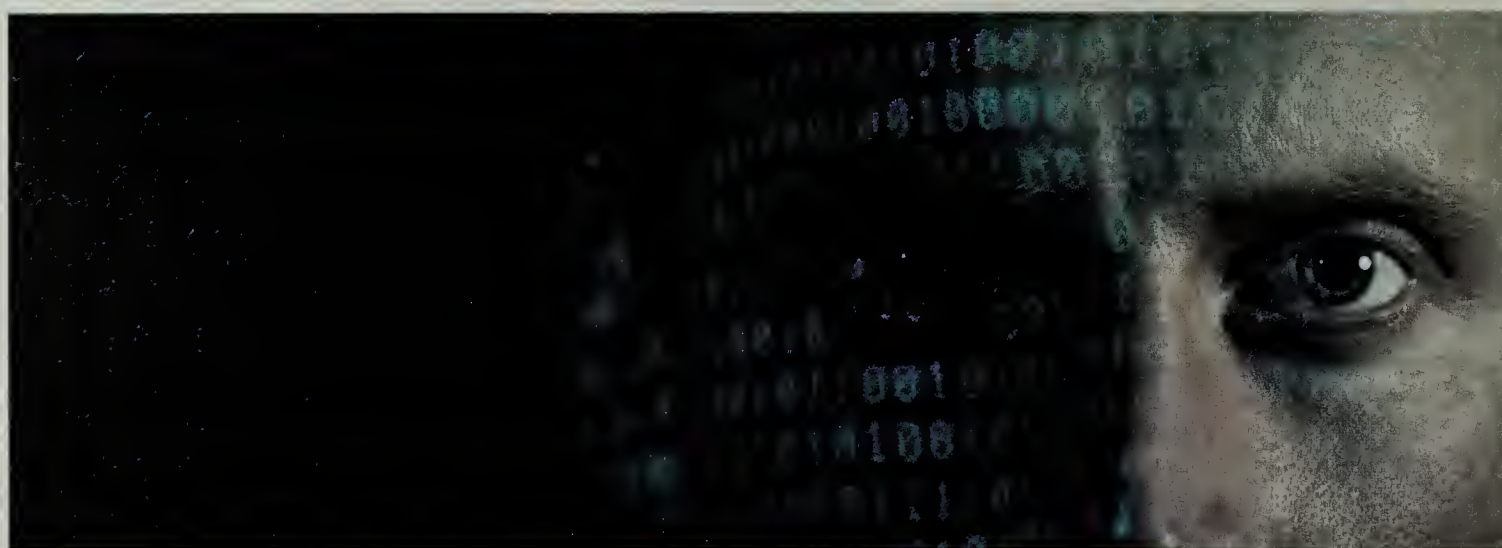
packages and the occasional vendor kickback, who needs to worry about the long-term health of an organization? American workers can be innovative, self-starting and button-cute, but if they won't work for a Bombay salary with no health insurance, out they go. They can always get jobs mowing lawns for those MegaCorp executives who retired on their golden parachutes.

Shay Lynn
Database administrator,
Greenwood Village, Colo.

COMPUTERWORLD welcomes comments from its readers. Letters will be edited for brevity and clarity. They should be addressed to Jamie Eckle, letters editor, Computerworld, PO Box 9171, 1 Speen Street, Framingham, Mass. 01701. Fax: (508) 879-4843. E-mail: letters@computerworld.com. Include an address and phone number for immediate verification.

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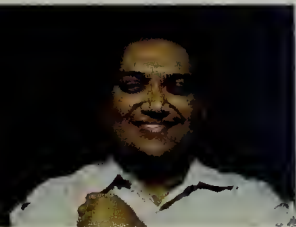
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Microsoft Reports For BI Duty

Microsoft's Reporting Services tool isn't quite ready for business users yet, but it's causing a commotion in the business intelligence market. **Page 26**

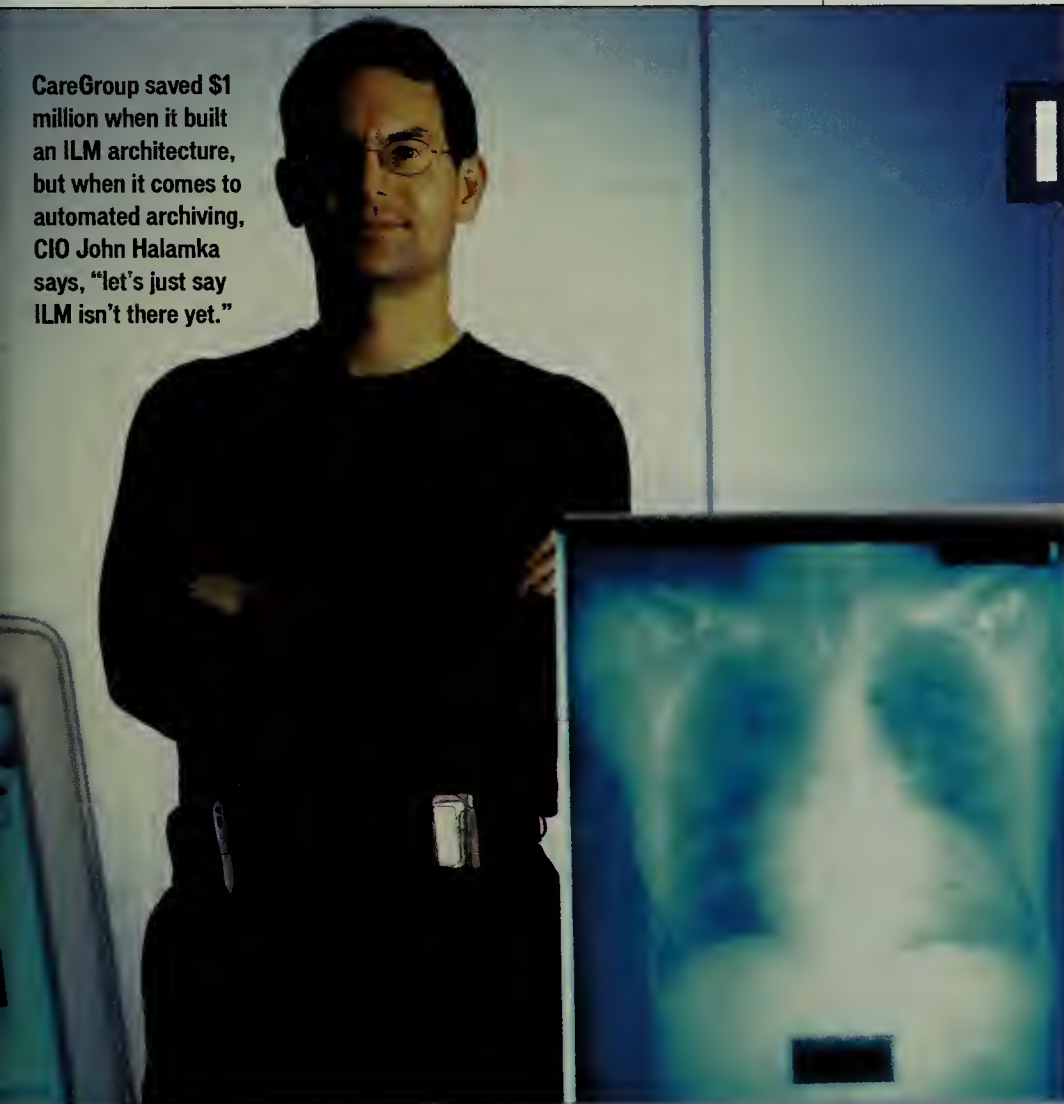
QUICKSTUDY VANs

Value-added networks are communication networks supplied and managed by third-party companies that facilitate electronic data interchange, Web services and transaction delivery by providing extra networking services. **Page 30**

SECURITY MANAGER'S JOURNAL SecurID Rollout Calls for Planning

With two-factor authentication about to roll out to the masses, a step-by-step plan is drawn up. You've got to think ahead if you're going to introduce 5,000 users to something new, says Mathias Thurman. **Page 32**

CareGroup saved \$1 million when it built an ILM architecture, but when it comes to automated archiving, CIO John Halamka says, "let's just say ILM isn't there yet."



WEBB CHAPPELL

ILM: Putting THE PIECES Together

Users are still looking for ways to fully integrate and automate information life-cycle management technologies.

BY LUCAS MEARIAN

INFORMATION LIFE-CYCLE management (ILM) holds the promise of automating storage from the moment data is created by business applications to the time it's deleted from digital tapes stored in underground vaults. But the technology may never realize its full potential without the automation of business rules and processes, or standards to tie heterogeneous storage-area networks (SAN) and network-attached storage together into a tight mesh of resources from which to draw, say users and analysts.

The limitations of ILM are now apparent even in its success stories. John Halamka, CIO at Boston-based CareGroup Inc., says the ILM architecture he built saved his hospital management company more than \$1 million by allowing him to avoid the purchase of

high-performance systems to store older X-ray images and other data that isn't critical but still needs to be readily accessible.

Halamka says only about 20% of the data in his Oracle database is active, and the rest can be relegated to Tier 2 storage. "The value of a payroll check today is very important, but a year after W-2s are issued — well, we can move off to different storage," he says.

The CareGroup ILM architecture, which took four years to build, automatically migrates data through four levels of storage, each less expensive and slower-performing than the last.

Halamka's IT team wrote its own middleware to perform the data migration with radiology image management software from General Electric Co. and Veritas Software Corp.'s appli-

cation management software, which monitors the performance of its internal physician Web site, CareWeb.

Halamka's infrastructure consists of 200 Wintel servers from Hewlett-Packard Co. and 25 high-end HP rp8400s running Unix. Its 100TB of storage comprises 35TB of Symmetrix arrays, 35TB of Clariion CX600 arrays and 30TB of Celerra network-attached storage for file serving, all from EMC Corp. A Powderhorn tape library from Storage Technology Corp. is used for long-term archival storage. A pair of 112-port MDS 9509 switches from Cisco Systems Inc. provides a layer of abstraction between application servers and back-end storage, allowing capacity to be served up as if from a single pool instead of many arrays.

Halamka cobbled together his archi-

tecture and acknowledges that not every company could afford its \$3 million price tag, which included software and hardware. But he says it was cheaper than the alternative.

The state of Massachusetts requires CareGroup to keep clinical records for up to 30 years. Halamka says he'd love to put the data on high-end Symmetrix arrays, "but just my capital budget restrictions alone are going to require me to identify what data is mission-critical and [needed] in milliseconds and what data is not so mission-critical so I can wait a few seconds to retrieve it." Halamka is still addressing e-mail backup and automating his tape-archival infrastructure, and he has yet to find a utility that will automatically migrate data in business applications

Continued on page 24

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Continued from page 21

onto his tiered storage architecture.

"I run PeopleSoft for all of my 12,000 employees' payroll. Wouldn't it be great to say after you cut the checks this week, 'Do we really need all the raw data that generated the checks? Let's move that off into archival storage,'" Halamka says. "Let's just say ILM isn't there yet."

Halamka and other IT managers are waiting for vendors to produce heterogeneous data-migration tools, which are only now beginning to emerge with the Storage Management Initiative Specification, known as SMI-S.

But pieces of ILM, which can relieve systems administrators of arduous manual processes and produce fast ROI, do exist today. Vendors such as Princeton Softech Inc., OuterBay Technologies Inc. and Applimation Inc. sell software that will remove unused or nonessential data from databases and migrate it to storage based on business policies. Using rules engines, the software can distinguish between open and closed business transactions.

Policy-based Archiving

E-mail archiving tools from companies such as Veritas, KVS Inc., Zantaz Inc., Connected Corp., and EMC's Legato Software division use policies to automatically move e-mail and attachments out of applications such as Exchange, Outlook and Lotus Notes onto disk or tape, which can then be searched.

But still missing in third-party software for ILM is the automation of business processes and standards to tie heterogeneous SANs together.

Tape library manufacturer Advanced Digital Information Corp. in Redmond, Wash., plans to release an upgrade this month to its Pathlight VX appliance that will present a single management interface between EMC Clariion disk arrays and its own tape libraries as well as libraries from StorageTek. But that addresses only hierarchal storage management.

The industry must change how it looks at storage management and operations, say analysts and users.

"Let's work from the basis of business requirements and business practices," says Mike Peterson, president of Strategic Research Corp. in Santa Barbara, Calif., and program director of the Storage Networking Industry Association's (SNIA) Data Management Forum. "We have to instrument the infrastructure so it can be operated automatically. We have to move back to basics."

"It's hard for us to imagine thinking

FIVE STEPS TO ILM

- 1 Consolidate data and implement network storage.**
- 2 Classify data according to service-level objectives. Tier storage and data services into consistent configurations in support of those objectives.**
- 3 Align ILM practices to service-level agreements.**
- 4 Automate ILM technologies with management tools.**
- 5 Standardize practices and use standards-based technology across multiple sites for heterogeneous interoperability.**

about this as a storage problem," says Kate Kristenson, vice president of information product support at Inovant LLC, Visa International Inc.'s IT organization. "You have to think of it as a systems integration problem. The operating systems have a role to play. The application packages have a role to play. The database has a role to play. The real challenge is how do you think through the application integration end to end."

Foster City, Calif.-based Visa spent 14 months choosing vendors when it built a 150TB relational database and a SAN to support it. Upgrades to the database went online in September. The database is the data store for 300 million transactions per day. Visa looked for vendors that would tailor their software to its ILM needs and take responsibility to grow along with the company, Kristenson says.

"We've been able to influence the development of the technology from our vendors. That has saved us on development time internally," she says.

Visa uses extract, transform and load tools from Lexington, Mass.-based Ab Initio Software Corp. to perform near-real-time analysis of data being stored in the relational database.

Data generated in that database is stored in several tiers — from 120TB of high-performance Symmetrix and 70TB of IBM FAStT midrange disk arrays to tape libraries — for real-time or near-real-time retrieval for six months.

Visa spent three years creating its relational database and tiered storage infrastructure. Prior to that, data was siloed by business unit and couldn't be viewed in real time.

"We're now moving to the point where we have all the fundamental data in one place, and we're now using it to drive new business decisions," says Joel Mittler, senior vice president of information services at Inovant.

After transactional data has been viewable in real time on disk for six months, it's automatically migrated to StorageTek tape libraries that hold up to 2 petabytes. Administrators can retrieve information in minutes from the libraries. After two and a half years, the tapes are shipped off-site, and retrieving that data can take a day or more.

Storage resource management (SRM) tools — software that can report on devices, SAN utilization rates and where business applications access and store data on arrays — are essential building blocks in ILM architectures. Without them, administrators are flying blind when it comes to the efficiency and utilization of their stor-

age infrastructures, analysts say.

According to Bill North, an analyst at IDC in Framingham, Mass., SRM software will be the fastest growing storage software segment through 2008.

Currently, storage vendors such as EMC, IBM and Hitachi Data Systems Corp. have products that operate within homogeneous islands of storage that can perform policy-based migration of data or ILM. But products are emerging that can migrate data between competing vendors' machines. Even when the technology is available to tie the pieces of ILM together, however, users may be slow to embrace it.

Gary Theus, a field support supervisor at Thompson Hine LLP, a Cleveland-based international law firm with about 360 attorneys, is in the middle of deploying 6TB of Advanced Technology Attachment disk storage from Nexsan Technologies Inc. in Woodland Hills, Calif., as a second tier of storage below high-end systems from Hitachi. Theus says his company paid \$30,000 for the 6TB of storage on an ATABeast array from Nexsan, whereas he paid \$200,000 for 1.5TB of Hitachi storage.

But before Theus can begin thinking about ILM, he has to agree with the business side on how to classify data in order to determine the law firm's retention policies. He expects to tackle that project next year. (To see how other IT executives are handling that challenge, go to QuickLink 50394.)

Right now, like in many IT shops, Theus' policy for the deletion of records such as e-mails is "everything past five years."

"We've just not wrapped our arms around [ILM] yet," Theus says.

Q 51097

Data Classification Standards Coming

SNIA EXPECTS TO RELEASE by the middle of 2005 a standard for classifying data in order to store it according to its business importance.

In October, the SNIA Data Management Forum published a road map for creating standards to tie heterogeneous storage systems together. It also published best practices and classified the development stages of ILM, which should help users determine what they have to do to achieve a utility storage model.

IDC analyst Bill North agrees that simplifying the classification of data — what needs high-performance storage and what doesn't — is crucial to any ILM strategy.

"Beyond when a file has been created, modified or last used, you need to know who it belongs to. And Windows, Unix and mainframe applications all need to be treated separately because all the data looks different," North says.

The SNIA is also working on a standard for data services — such as backup and replication — that will become part of its existing Storage Management Initiative Specification. That will likely be out in 2006, says Mike Peterson, program director of the Data Management Forum.

"We're talking about business processes that have to be automated in a standards

fashion. That's called operations management. That product doesn't exist yet," Peterson says.

One impediment to progress is vendor push-back, says Peterson. Vendors are worried that if they standardize, their products will become commoditized. Other resistance comes from business application vendors, he says.

For example, database vendors don't see any burning need to build policies for offloading data into their products. Their position is that "if you have more money and can throw it at more CPUs and storage, then it doesn't make a difference," Peterson says.

—Lucas Mearian

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Mayur Raichura says Long & Foster is saving about \$530,000 each year by using Microsoft's Reporting Services tool to generate Web-accessible reports.

KATHERINE LAMBERT

MICROSOFT REPORTS FOR BI DUTY

WITH ITS FREE REPORTING SERVICES SOFTWARE, THE DESKTOP DOMINATOR DISRUPTS THE REPORTING TOOLS LANDSCAPE.

BY HEATHER HAVENSTEIN

WHEN RESIDENTIAL REAL ESTATE AGENCY Long & Foster Cos. decided to update the way it prepares financial reports and replace a system it had been using for 20 years, the company chose Microsoft Corp.'s first reporting tool to do the job.

Long & Foster opted to use a beta version of Microsoft's Reporting Services (RS) to anchor its entire process for generating financial reports for company management, even though other tools had been on the market for years — and some even

ship with Microsoft's own SQL Server 2000.

"That was a bold and to some degree risky move," says Mayur Raichura, the company's director of information services.

But the gamble seems to have paid off for Fairfax, Va.-based Long & Foster. In four months, it developed 40 different reports for its 212 offices using Microsoft's SQL Server 2000 RS — eight months ahead of the schedule projected by developers.

Users now can access reports instantaneously over the Web instead of receiving them monthly. Raichura estimates that the company is saving approximately \$530,000 per year by using RS in lieu of paper copies delivered by couriers.

Long & Foster is one of a growing number of com-

panies using RS to create, manage and publish reports from data pulled from a data warehouse. Microsoft says more than 100,000 users have downloaded the tool since its introduction in January. Users say the price is right for the server-based reporting platform: It's free for SQL Server users who need to run only one instance of the business intelligence database. (If they need more instances, they must buy more server licenses.) Users are also attracted to RS's tight integration with the Visual Studio .Net development environment.

However, while RS can deliver production-style reports from OLTP database queries, it can't provide management-style reporting designed to allow users

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Continued from page 26

to author their own reports. Users and analysts alike say that while the product's tight integration with .Net is helpful for developers, it locks out users who don't have knowledge of the development platform. Competitors in the reporting arena, including Business Objects SA, Cognos Corp., MicroStrategy Inc. and Hyperion Solutions Corp., support both production and management reporting.

Nonetheless, Long & Foster and other companies are making RS a corporate standard for reporting.

For example, copper producer Phelps Dodge Corp. has replaced its Crystal Reports tools (marketed by Business Objects, which acquired Crystal Decisions late last year) with RS, which now serves up 400 to 500 daily financial reports to managers. James Faith, lead engineer at the Phoenix-based company, says RS had an advantage because it was available for free with Phelps' existing SQL Server license and because it allowed the company to push Web-based reports to users.

"It has absolutely changed the way we do our reporting," Faith says. "We can have it so it automatically e-mails out to users ... to do financial reporting on a daily basis. It is very file-based, and it allows you to move from various environments pretty seamlessly. It takes our developers no time at all to produce these, get them tested ... and into production."

Cindi Howson, a faculty member at The Data Warehousing Institute in Seattle and author of the independent BIScorecard.com report, which evaluates business intelligence tools, said RS is most likely to be found in Microsoft shops, given its tight integration with other Microsoft products.

"If your standard for application servers is Microsoft-based, then definitely you should be looking at the Microsoft stack," Howson says. "If a company has decided to have a different application server, or if they're running all on Unix, Microsoft doesn't meet that need."

She adds that RS does, however, have capabilities that other popular reporting tools don't, such as a data-driven subscription model.

"[Microsoft] reuses some of the components, like scheduling, that are inherent in SQL Server," she says. "What Microsoft can do that Crystal can't do is have multiple data sets populate a report, which really creates a dashboardlike report."

Market Shake-up

Microsoft shook up the business intelligence market in 2003, when it announced its intentions to add a reporting tool to its BI stack, which already included online analytical processing and extract, transform and load tools. After Microsoft disclosed its plan, Business Objects acquired reporting-tool vendor Crystal Decisions, Cognos rolled out its own reporting tool, and Hyperion snapped up tool vendor Brio.

Now, Microsoft is maneuvering to expand the functionality of RS. The new features will debut in the version of RS that ships with SQL Server 2005 (see sidebar). Microsoft also has announced two new Report Packs report templates that allow reporting against its CRM and Exchange applications.

"You have this case where Microsoft used to be dependent on outside vendors like Crystal for reporting," says Rob Helm, an analyst at Directions on Microsoft, an independent research firm in Kirkland, Wash. "Now it has an in-house product that looks basically

EXTENDING THE REACH

MICROSOFT IS MANEUVERING to broaden the appeal of Reporting Services by integrating it into more products and adding new features.

The company has already shipped RS in the latest version of its Microsoft Operations Manager. And Visual Studio 2005 will include embeddable reporting controls that Microsoft says will allow developers to more easily build applications with RS. And RS will be integrated into the next version of Microsoft's CRM software.

For SQL Server 2005 – now due out next summer – Microsoft will add an MDX designer into Reporting Services to allow enterprises to create and run relational and OLAP queries against SQL Server.

The most highly anticipated improvement slated for RS is probably the new Report Builder, which will be available in SQL Server 2005. Report Builder will incorporate current technology with an end-user query and report-authoring environment that has drag-and-drop features that are more suitable for business users.

Most analysts and users agree that RS's biggest drawback is that it is mostly limited to developers who have experience in Microsoft's Visual Studio .Net.

Report Builder will provide the type of functionality that Hans Rasmussen, an IT

project leader at TDC AS, says he has been waiting for since the Danish telecommunications company began using RS in January. Rasmussen says he was surprised to find that the designer interface of RS was in Visual Studio, meaning end users couldn't use it to build reports. Still, he says he has high hopes for Report Builder, which he has previewed.

"I believe that with this interface we can push Reporting Services all the way to the end users in the business lines," he says.

Rasmussen estimates that by using Report Builder, TDC can save up to \$543,000 – the amount the company is spending annually to license a Brio reporting tool.

While Report Builder will provide the native report-writing that was missing from RS, the onus now will be on Microsoft to present benchmarks and customer case studies that prove RS can stand up to the rigors of production enterprise and analytic reporting, says Forrester Research analyst Keith Gile.

"This will take time, and prospective users need to understand that even though SQL Server is a mature and proven relational database management system, Reporting Services is still brand-new and relatively unproven," he says.

—Heather Havenstein

to be pretty much ubiquitous in the Microsoft product line. It's going to have a huge impact over the next two to three years simply because it will ship with so many Microsoft products."

Perhaps the biggest enhancement will come when Microsoft adds Report Builder to RS in SQL Server 2005. Report Builder is rebranded technology from Active Views Inc., which Microsoft acquired earlier this year.

"Report Builder will go after that group that wants to come in and build their own report or modify an existing report and not have to live in the Visual Studio environment, but more importantly not have to understand the database," says Alex Payne, senior product manager on Microsoft's SQL Server team. "I can drag and drop report entities onto a palette, effectively allowing me to build a report, an ad hoc report ... but I'm browsing a semantic layer — I'm not building it off a database."

But despite the initial buzz around Microsoft's entrance into the reporting world and the new features planned for RS, some users haven't been lured away from their existing tools.

For example, the Federal Home Loan Bank of San Francisco, a Microsoft shop, took a look at RS but opted to

stick with its Crystal reporting tools, says Rose Kim, the bank's vice president of application development and support.

"Microsoft is doing with Reporting Services what they do with everything else — they are introducing it now, and in three to four years time, they may have all the industry-leading features," Kim says. "For now, we're looking to continue to build upon the tools we already have. Part of it is a human investment in terms of training and knowledge. The ability to become agile and proficient at a particular tool requires some time."

In addition, users should be aware that while RS is essentially free for SQL users, heavy demands for report generation may require enterprises to run more than a single instance of SQL, says Keith Gile, an analyst at Forrester Research Inc. "It is not recommended that any company with a large report library or a heavy demand for report generation use a single instance of SQL Server for all database and reporting activities," Gile says. "Companies need to understand how much of an additional load a production-reporting environment will place on the SQL Server engine." **51123**

PLAYERS AND PRODUCTS

Major vendors of production query and reporting tools (for querying OLTP databases and formatting reports) and management query and reporting tools (for users who want to author their own reports):

VENDOR	PRODUCTION TOOL	MANAGEMENT TOOL
Business Objects	Crystal Reports (acquired from Crystal Decisions)	Business Objects for desktop authoring; WebIntelligence for Web-based authoring
Cognos	ReportNet	ReportNet QueryStudio
Microsoft	Reporting Services	Not available until SQL Server 2005 ships
MicroStrategy	Report Services	Desktop for desktop authoring; Web for Web authoring
Hyperion	Reports (for financial reporting) SQR (acquired from Brio)	Intelligence (acquired from Brio)
Informatica Corp.	None available	Power Analyzer

SOURCE: BIScorecard.com

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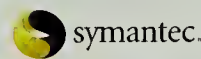
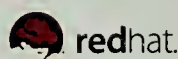
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☐ \$1,795

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- ☐ Manufacturing & Process Industries (non-computer related)
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- ☐ Agriculture/Forestry/Fisheries
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- ☐ Publishing/Broadcast/Advertising/Public Relations/Marketing
- ☐ Research/Development Lab
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Your job title/function:

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 - ☐ Vice President
 - ☐ Director
 - ☐ Manager/Other IT Manager
 - ☐ Supervisor
- BUSINESS MANAGEMENT
 - ☐ CEO, COO, Chairman, President
 - ☐ CFO, Controller, Treasurer
 - ☐ Executive VP, Sr. VP, VP, General Manager
 - ☐ Director, Manager
 - ☐ Other Corporate/Business Manager

Number of employees in your entire organization (ALL locations):

- ☐ 20,000 or more
- ☐ 10,000 - 19,999
- ☐ 5,000 - 9,999
- ☐ 1,000 - 4,999
- ☐ 500 - 999
- ☐ 100 - 499
- ☐ 50 - 99
- ☐ Less than 50

What is your organization's annual IT/IS budget for all IT/IS products?:

- ☐ \$1 billion or more
- ☐ \$500 to \$999.9 million
- ☐ \$100 to \$499.9 million
- ☐ \$50 to \$99.9 million
- ☐ \$10 to \$49.9 million
- ☐ \$1 to \$9.9 million
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- ☐ \$250,000 to \$499,999
- ☐ \$100,000 to \$249,999
- ☐ Under \$100,000
- ☐ None

What is the estimated annual revenue of your entire organization?:

- ☐ \$10 Billion+
- ☐ \$1 Billion - \$9.9 Billion
- ☐ \$500 Million - \$999 Million
- ☐ \$100 Million - \$499 Million
- ☐ Less than \$100 Million

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- ☐ Set budget for expenditures
- ☐ Determine need to purchase
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- ☐ All of the above
- ☐ None of the above

What is your organization's MOST mission critical development/implementation project this year?

- ☐ Business Intelligence/BPM/Customer Analytics
- ☐ Data Management
- ☐ Mobile & Wireless
- ☐ Enterprise Infrastructure/Data Center Buildout/Consolidation
- ☐ Network Infrastructure/Storage
- ☐ Security
- ☐ Application Development and Integration (Web services/EAI)
- ☐ Compliance

What is your organization's SECOND-MOST mission critical development/implementation project this year?

- ☐ Business Intelligence/BPM/Customer Analytics
- ☐ Data Management
- ☐ Mobile & Wireless
- ☐ Enterprise Infrastructure/Data Center Buildout/Consolidation
- ☐ Network Infrastructure/Storage
- ☐ Security
- ☐ Application Development and Integration (Web services/EAI)
- ☐ Compliance

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VANs

DEFINITION

Value-added networks (VAN) are communications networks supplied and managed by third-party companies that facilitate electronic data interchange, Web services and transaction delivery by providing extra networking services.

BY RUSSELL KAY

VALUE-ADDED networks got their first real foothold in the business world in the area of electronic data interchange (EDI). VANs were deployed to help trading and supply chain partners automate many business-to-business communications and thereby reduce the number of paper transfers needed, cut costs and speed up a wide range of tasks and processes, from inventory and order management to payment.

In today's world, e-commerce is increasingly based on XML, though EDI remains an important part of business and still relies on value-added networks. But other types of VANs have begun to appear, including Web services networks and transaction delivery networks.

A VAN is created when a network provider leases communications lines from a common carrier (such as a telephone company), enhances them by adding services and improvements that facilitate business-to-business application integration, and then resells the network connection and services to others for a

fee. Value, then, refers to what the supplier provides beyond the basic network connection and becomes the critical element differentiating one network offering from another.

VANs and EDI

In the 1980s, VANs emerged as a way to connect supply chain participants. They offered store-and-forward mailboxes that provided protocol conversion, security and guaranteed delivery.

However, EDI VANs proved to be too costly for most businesses. Only the largest of supply chain participants could afford the expensive setup fees associated with EDI software, not to mention the sometimes exorbitant per-transaction fees. This meant that many small and midsize firms couldn't afford to join electronic, automated supply chains. And since the smaller companies couldn't join in, the larger ones that continued to do business with them still couldn't eliminate a lot of their traditional, paper-based processes. When the Internet and the World Wide Web entered the picture, along with standards like ebXML, some observers felt that VANs might simply disappear.

While traditional EDI is in many ways inferior to newer approaches, it still offers a compelling business model. In fact, the continuing presence of EDI is not a result of its fundamental technology but instead can be attributed to its underlying communications structure, the VAN, which can guarantee and secure B2B interaction over a network.

Web Services Networks

In its reincarnation, the EDI VAN model has become the Web services network (WSN, or sometimes WSVAN), which has to meet many of the same requirements and features that EDI users depend on.

WSNs are characterized by loosely coupled, asynchronous service-oriented architectures (read the SOA QuickStudy at QuickLink 44708) supporting standards such as XML, the Simple Object Access Protocol [QuickLink a5220], the Web Services Description Language and UDDI [QuickLink 32418]. This helps individual Web services providers keep their offerings simple in design and frees them from having to separately implement network house-keeping functions.

The final hurdles for business-to-business interaction

WHERE'S THE VALUE?

Analyst Benoit Lheureux at Gartner Inc. says there are four fundamental types of features that add value to a network: network services, integration services, application services and trading-partner services. Each category can include numerous specific services.

NETWORK SERVICES

- Error detection and correction
- Encryption
- Quality of service to guarantee availability and response times
- Protocol and speed conversion

INTEGRATION SERVICES

- Data storage
- Directories
- Database access

APPLICATION SERVICES

- Data translation
- E-mail and other messaging-related functions

TRADING PARTNER SERVICES

- Electronic funds transfers
- Electronic mailboxing of EDI transmissions
- EDI record-keeping for audit tracking

across the Internet are dependability and security. Most systems and networks within a given company are designed to manage transaction flows behind a secure, centrally managed firewall. Unfortunately, the B2B world exists between firewalls, with partners often sharing no common infrastructure. Moreover, the Internet itself offers little security, reliability or accountability.

Transaction Delivery Networks

The newest evolution of VANs, which first appeared in 2000, are the transaction delivery networks (TDN) that provide

services for secure end-to-end management of electronic transactions.

Also called transaction processing networks or Internet utility platforms, TDNs can guarantee delivery and nonrepudiation of messages in addition to providing high security and availability, network performance monitoring and centralized directory management.

TDNs typically use a store-and-forward messaging architecture that's designed to adapt readily to a wide range of disparate systems and support any kind of transaction. Most TDNs offer secure encryption using a public-key infrastructure and certificate authorization for trading partners.

TDNs provide standards-based application programming interfaces that developers can use to create custom applications to link internal data sources with the TDN. In addition, most TDNs provide application adapters that plug directly into existing computing environments, such as messaging middleware. **Q 51105**

Kay is a Computerworld contributing writer in Worcester, Mass. Reach him at russkay@charter.net.

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EDI Basics

ELECTRONIC data interchange is a standards-based format for exchanging business data. Traditional EDI networks have been based on trading partners feeding standardized, formatted data into separate systems on each end of the line.

An EDI message is made up of a string of data elements, each representing a particular item (such as a price, quantity or product model number) and separated by a delimiter. The entire string is called a data segment. Take one or more data segments, frame them with a header and trailer, and you have the basic EDI unit of transmission (equivalent to a message), called a transaction set.

A transaction set typically involves the transfer of information that would normally be contained in a business document or form, such as an order or invoice. The parties that exchange EDI transmissions are called trading partners. EDI messages can be encrypted.

The standard behind EDI, ANSI X12, was developed by the Data Interchange Standards Association, adopted by the American National Standards Institute and coordinated with a United Nations standard called Electronic Data Interchange for Administration, Commerce and Transport.

— Russell Kay

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SecurID Rollout Calls for Planning

With two-factor authentication about to head out to the masses, a step-by-step plan is drawn up. By Mathias Thurman

AS I'VE MENTIONED in previous columns, my company has invested in RSA SecurID to provide two-factor authentication for access to our critical infrastructure, namely routers, switches, firewalls and production Unix servers. As you might recall, two-factor authentication entails something you have (like a bank ATM card) and something you know (your PIN).

On our network, the SecurID token (something you have) displays a random number, or "token-code," which changes every 60 seconds. That, combined with a user-defined PIN (something you know), represents what is termed a "passcode."

To date, we have deployed about 150 tokens to mostly network engineers, systems administrators and information security personnel. They are fairly savvy individuals, so deployment, support and administration have been pretty straightforward.

Soon, though, we will begin to spread two-factor authentication to other areas of the company. Any employee who needs to remotely access the network via our Cisco VPN will need a SecurID token to authenticate to the network. SecurID tokens will also be required to associate to one of our corporate wireless access points. They'll be needed when off-site users check their e-mail via Microsoft Outlook Web Access. And the list goes on.

Eventually, every employee will have a SecurID token.

Once that happens, it will be fairly easy to SecurID-enable applications and other areas of the enterprise, because no matter what a user is attempting to access, the use of the token remains the same.

For now, we're focusing on more than 5,000 employees, but deploying tokens to that many users and then supporting them calls for proper planning.

A dedicated project manager is coordinating the various steps in this project, the first of which involves communication and training. We want

end users to feel familiar with SecurID tokens before they actually receive one. The training and communication process will include mass e-mailings, a Web site with an FAQ and PowerPoint slides. Some of these materials have been developed by my infosec group, and others are being provided by RSA Security Inc.

Token Logistics

The next step will be distribution. Those 5,000 employees are located in almost every state and major city in the U.S., plus India, Singapore, China, Mexico and Europe. To

handle this logistical nightmare, we're splitting the token recipients into three groups.

The largest of these groups by far is made up of employees who need SecurID tokens. We decided that the most efficient method of providing them is to have a consultant send tokens to geographically identified contacts, who will then deliver tokens to individual users. The consultants will be able to focus entirely on the token deployment and not be distracted by other duties.

The second group consists of new employees. With them, the easiest thing to do is to work with the security badge office. Each new hire, even those who will work in home offices, is required to have a security badge. All we have to do is modify the new-user provisioning process to flag those who will need a token.

The third group is made up of existing employees whom we haven't identified as needing tokens but who suddenly require one. Those users will be asked to contact the help desk to obtain authorization. After that, the security badge office will send out the token.

Once an employee has his token, he must initialize it using an RSA SecurID Web-based application called Deployment Manager. Each user will visit a Web page, where he will answer a series of questions in order to be authenticated, enter the serial number on his token and then set up a PIN. Deployment Manager runs on an Apache Web server and will talk to a back-end Oracle database server, so our database administrators are involved in the overall project plan. They're creating the database so that we can test functionality prior to production.

The help desk will play an integral part in supporting the

SecurID deployment. Inevitably, some users will forget their PINs, lose their tokens or cause the tokens to be out of sync. The help desk will address the most common issues with another Web-based application from RSA Security, called Quick Admin. We already use this application to support our initial 150 savvy users, but we'll have to provide the appropriate amount of training to the help desk staffers so they can attend to the brunt of support calls. The infosec group will handle anything outside of what the Quick Admin tool provides.

On the hardware front, a primary authentication server and two replicas are currently handling all the SecurID token transactions. The primary RSA ACE/Server contains the database of authorized users, including the permitted relationships between individual users and protected devices. The primary database is frequently synchronized with the replicas, and the load is automatically balanced, providing for a pretty decent fail-over configuration. If the primary or either replica should fail, the other servers can handle authentication requests.

Although our current deployment model could probably handle the increase in authentication requests as we scale from 150 users to more than 5,000, we plan to upgrade the servers and increase the number of replicas, some of which will be placed in key overseas locations.

All in all, and with the project manager's help, we have a robust, comprehensive plan, and I expect that when we finally pull the trigger, we'll have a smooth deployment and an aggressive support model to address user needs. ▀

WHAT DO YOU THINK?

This week's journal is written by a real security manager, "Mathias Thurman," whose name and employer have been disguised for obvious reasons. Contact him at mathias_thurman@yahoo.com, or join the discussion in our forum: [QuickLink a1590](#)

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SECURITY LOG

Consortium Takes On IM Threats

A group of Internet security and instant messaging providers has teamed up to detect and thwart IM and peer-to-peer viruses and worms. The consortium, led by corporate IM software vendor IMlogic Inc. in Waltham, Mass., is setting up a threat center to analyze and warn against vulnerabilities. It's offering threat management and free alerts and e-mail notifications of risk assessments for subscribers. The group also includes McAfee Inc., Sybari Software Inc., Yahoo Inc., America Online Inc. and Microsoft Corp.

Online Shoppers Seek Security

According to the results of a survey conducted by Gartner Inc., online consumers are growing frustrated with the lack of security provided by banks and online retailers and feel that passwords are no longer sufficient to secure their online transactions. In the survey of 5,000 adult Internet users, almost 60% said they are concerned or very concerned about online security, said Gartner analyst Avivah Litan. Even more important for online retailers: More than 80% of those surveyed said they would buy more from an online vendor that offered them more than just a username and password to protect their accounts, she said.

Secure.Data Gets Oracle Support

Stamford, Conn.-based Protegrity Corp. announced that its Secure.Data software for centralized management and auditing of data security policies and data encryption now supports Oracle9i on the Solaris, HP-UX, Windows and AIX systems. Secure.Data Version 3 also supports Oracle8 and earlier database versions. Protegrity plans to include support for Oracle 10g early next year.

**SECURITY
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Deploying SecurID tokens to more than 5,000 users and then supporting them calls for proper planning.

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BRIEFS

Microsoft Releases SP1, x64 to Beta

■ Microsoft Corp. last week announced the availability of the first release candidates for Windows Server 2003 Service Pack 1 (SP1) and the x64 editions of Windows Server 2003 and Windows XP Professional. The products will be available within the next month to users in Microsoft's Customer Preview Program. The final releases are due in the first half of 2005. The x64 editions of Windows Server 2003 and Windows XP Professional allow users to run both 32- and 64-bit applications, according to the company.

Cellwave Unveils Mobile Call Services

■ Voice-over-IP application vendor CallWave Inc. has unveiled new call-screening and call-transfer services for mobile phone users. The Santa Barbara, Calif.-based company said its new Mobile Call Screening service will allow users to listen to voice messages in real time, and its new Mobile Call Transfer service lets users transfer cell phone calls to a home or office phone. The CallWave services work with all cell phones and carriers and start at \$3.95 a month.

Phatware to Offer Monitoring Tool

■ PhatWare Corp. in Mountain View, Calif., has released software that allows network administrators to analyze and diagnose problems on packet-based networks used with Windows-based mobile Pocket PCs. The PhatNet network monitoring software allows IT workers to conduct real-time analyses on any kind of LAN or WAN and to filter packet-based data by IP address, User Datagram Protocol or TCP port, hardware address or data string, according to Phatware. The professional version of the application sells for \$299, and a personal edition is \$99.

DOUGLAS SCHWEITZER

Tiny Storage Devices Carry a Big Risk

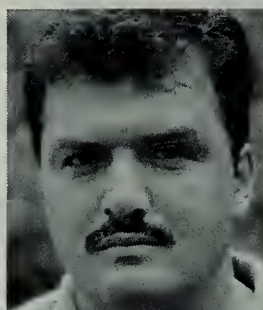
WE'VE ALL SEEN THEM — portable MP3 players, sexy new iPods and “finger-size” drives in varying colors that use the ubiquitous Universal Serial Bus or FireWire port for

connectivity. While they look innocent enough, they nevertheless pose a serious security threat to organizations. In fact, some companies have banned their use outright. Unfortunately, too many others continue to ignore the potential security risks posed by the use of MP3 players, USB flash drives and other, similar high-capacity portable storage devices.

These easily concealed devices — which employees often bring into the workplace — can be readily plugged into any USB port, allowing users to quickly and effortlessly download sensitive corporate information. Then that information can all too easily be taken to the outside world. Even when transgressions are unintentional, security risks abound, since portable storage devices are able to circumvent network perimeter defenses such as firewalls and antivirus products at the mail server and can introduce viruses or other malware.

In a recent Computer Security Institute/FBI Computer Crime and Security Survey, over three quarters of all respondents cited insider abuse of network access as a top security concern for companies. And rightly so, since the survey indicated that disgruntled employees were responsible for most attacks on company networks. More than \$70 million was lost by organizations in just one year as a result of theft of proprietary information.

And financial losses aren't the only



DOUGLAS SCHWEITZER is an Internet security specialist with a focus on malicious code. He is the author of several books, including *Internet Security Made Easy*, *Securing the Network from Malicious Code* and *Incident Response: Computer Forensics Toolkit*. Contact him at dougneak@netscape.net.

consideration when it comes to insider abuses. An organization's reputation may be at stake if word gets out that employees have leaked information, especially in fields where client privacy is critical, such as finance or medicine.

Gartner issued a report in July in which it cited portable storage devices as considerable workplace security risks because they may be instrumental in downloading private, proprietary information or for admitting a virus. Pocket-size hard drives that connect using FireWire or a USB hard drive or key-chain drive, disk-based MP3 players (like the iPod), memory sticks, compact flash and other memory media, and digital cameras with media cards were all identified as security threats. Especially dangerous are USB sticks, which can be easily concealed and are capable of storing up to 1GB of data.

Insider threats can lead to the loss, corruption or unavailability of information, resulting in a disruption of service to an organization's clientele. Since fraud, theft and blackmail can be accomplished more easily by insiders, employee-awareness programs and computer security policies are imperative. Restricting access to information that may be altered or misappropriated reduces exposure. An organization may be held liable for the release of any sensitive or confidential information pertaining to its customers; therefore, appropriate procedures to safeguard that

information are warranted. And don't overlook physical security.

While procedures and policies go a long way toward securing networks, administrators may want to use any one of several software tools currently available to help lock down USB ports. One such product is DynaComm i:scan from FutureSoft (www.dcseries.com). DynaComm i:scan acts as a real-time monitor, permitting management of the network from a centralized location while helping administrators enforce an organization's policies for using removable media across their networks.

From GFI Security (www.gfi.com) comes another handy tool, the GFI LANguard Portable Storage Control. This software enables administrators to maintain control of the organization's network by allowing users to plug in USB sticks, download and upload digital camera data, and connect MP3 players, smart phones, handhelds and the like. Administrators using the product can determine which people are permitted to use removable media centrally from Windows Active Directory.

There's no question that portable devices play a valuable role in the storage arena for organizations in today's work environments. Banning them across the board would be more detrimental than practical, and security experts agree that the preferable, more secure alternative is a controlled approach. The network is best protected by the organization adopting comprehensive security measures, including policy directives and security tools. Your network administrative team is wise to remember that threats don't arise solely from outside the network, but from (sometimes unwitting) users and their portable devices. In addition to what's out there already, security teams can anticipate a continuing influx of products for addressing client-side security. **51309**

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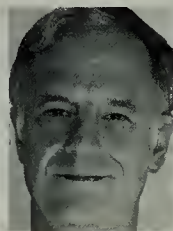
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IT MENTOR

Powerful Partnerships

Every IT vendor wants to be your partner, but Wharton School CIO Deirdre Woods has found a way to leverage collaborations to deliver great — and sometimes unexpected — results. **Page 40**



OPINION

Don't Outsource These!

Knowing which IT functions belong in-house is as important as deciding what to outsource, Bart Perkins says. Here are some of the keepers. **Page 46**

Finish the Feud

Searching for a way to thaw the cold war between IT users and the help desk? Here are some tips to help bring about détente. **Page 42**



"We had a mantra: 'We're good today, but we want to be great,'" says Philip Morris USA CIO Joe Amado (front), pictured here with members of his IT team.

DOUGLAS WOODS

CIO Joe Amado's focus on leadership, project management and customer service has revved up IT performance at Philip Morris USA. **BY THOMAS HOFFMAN**

CASE STUDY

THE IT DEPARTMENT at Philip Morris USA Inc. is a poster child for aligning IT with a company's business

divisions. Just ask Henry P. Long Jr.

Long, vice president of leaf purchasing at the tobacco giant, raves about how IT leaders work side by side with the heads of various departments to develop an IT strategy to support their respective business plans.

Over the past four years, the IT group has also put into place a more disciplined project management methodology that's helping it deliver projects on schedule, on budget and within scope 85% to 87% of the time, according to a benchmarking study conducted by The Hackett Group in September. That's up from a 50% to 60% delivery rate in 2000.

But what impresses Long the most is the fact that IT leaders get together with him and other business executives every quarter to find out how well the IT department is meeting project requirements, delivering on strategic objectives and supporting day-to-day operations. "They're very much aligned with each business function," says Long. "There's a real effort to focus on the client and move the business forward."

Such praise from a 26-year Philip Morris veteran is a testament to CIO

Good TO Great

Joe Amado and his masterful recrafting of the 560-person IT organization he inherited in 2000. (A combination of attrition and outsourcing has since decreased the staff to 480.)

Prior to Amado's promotion, Richmond, Va.-based Philip Morris' IT department was historically viewed as technically adept but lacking in organizational leadership competence, says Howard Guttman, president of Guttman Development Strategies Inc. in Ledgewood, N.J., who has been working with Amado and his team to drive organizational improvement since 2000.

"The people who had been at the top had IT competence, but they needed to ratchet up their leadership competence," says Guttman.

Enter Amado, who by 2000 had risen to the top IT post, 13 years after joining the company as a programmer. He found that the section on customer satisfaction with IT in that year's biannual corporate employee survey revealed that improvements were needed in managing projects and aligning IT with the business.

"We had a mantra: 'We're good today, but we want to be great,'" says Amado. That helped set the tone for a multipronged strategy aimed at developing a world-class IT organization, he says.

Leadership

Amado's first goal was to broaden the leadership capabilities of Philip Morris' IT managers. In 2001, Amado and Guttman held a two-day off-site meeting with the company's senior IT managers. Amado discussed steps they could take to improve their leadership capabilities, while Guttman provided executive coaching on teamwork.

"Some of the issues that came up were around conflict aversion, where there was a reluctance among IT managers to hold their peers accountable," says Guttman. He set up meetings between IT managers from different functional areas to help them build stronger bonds and identify ways to support one another "instead of relying upon Joe to be the answer man," Guttman says.

The effort continues. This November, Amado launched a three-day off-site IT leadership course that will enable him and his top managers to provide hands-on training to 25 to 30 IT managers at a time. The plan is to put 100 to 120 IT managers and staffers through the program by mid-2005, he says.

"Ten years ago, if you wanted instruction in leadership, you went to a class," says Amado. Nowadays, he says, peer training is more effective.

Philip Morris has also benefited from adopting a more structured approach to project management, drawing upon best practices espoused by the Project Management Institute Inc. in Newtown Square, Pa., and creating a project management office. This has enabled the IT organization to improve its ability to forecast and monitor the financial goals set for various initiatives, says Lisa Hunt, director of information services.

Amado explains that the biggest challenge he faced during the IT transformation was ensuring that his team was establishing the right business metrics to measure the group's performance. "I wanted to make sure we were improving the client experience," Amado says.



The organization was looking for that road map of where we were going and why. I wanted to make sure we were crystal clear on the value this organization delivers.

JOE AMADO, CIO, PHILIP MORRIS USA

Apparently, he made the right choices. Amado "tries to look at metrics that are very client-focused and have meaning," such as how a particular application is helping a business division to cut costs or improve productivity, says Howard Rubin, an analyst at Meta Group Inc. in Stamford, Conn., who has worked with Amado and his team.

Thanks to a combination of online, third-party and in-house training on finance, Philip Morris IT staffers are now more adept at building business cases for projects based on metrics such as return on investment, workload and risk reduction, competitive advantage, and alignment with business objectives, Hunt says.

By using a standard set of tools and techniques, the IT organization is better equipped to predict project outcomes, says Joe Miller, senior director of service delivery. "Before, [project management] was more seat-of-your-pants," he explains. "Now, we're better able to foresee issues we may be coming up

against."

"What we were trying to do was to put in repeatable processes" to help improve the group's project-delivery success rates, Amado says.

Three years ago, Amado assigned a group of four people to conduct project "health checks" to ensure that those processes are followed. They meet regularly with project managers and sponsors, monitoring the use of standard methodologies.

Customer Connection

Amado has also worked hard to align his IT organization more closely with the business. Recalling the valuable business experience he gained working in IT support roles in Philip Morris' sales, marketing and manufacturing divisions, Amado has placed IT managers directly into the business divisions to better understand business requirements.

He also encourages IT managers to transfer out of the technology area for a year or two to work in other divisions within the company. About 20 have done so over the past two years, Amado says.

"We have a lot more people now who are focused on the creation of business value," Miller says.

In another effort to improve alignment between IT and the business, Amado has developed a set of "visioning sessions." He brings IT and business leaders off-site to discuss business and IT strategies and how to align them more closely.

That, too, seems to be working. Ross Webster, vice president of trade marketing and distribution at Philip Morris, credits Amado with identifying the need to upgrade some systems in order to deliver real-time sales data to field reps. Those efforts, which began in 2000, produce daily updates on sales activities, such as the number of sales calls made and the number of stores contacted.

"[IT] is giving us the tools to have a much more productive sales organization," Webster says.

Despite all the changes that have taken place within the IT culture over the past four years, Amado says there hasn't been much resistance from his staffers. That's partly because the seeds for the IT department's transformation were planted throughout the 1990s as the organization intensified its focus on understanding and aligning itself more closely with the business.

"The organization was looking for that road map of where we were going and why," Amado says. "I wanted to make sure we were crystal clear on the value this organization delivers."

Amado's ability to communicate is one of his strengths, says Meta Group's Rubin. "Joe likes to look not at qualitative benchmarks but [at] his business partners and whether he and his group are doing a good job for them," he says.

Looking ahead to 2005, Amado will be working to improve business processes through the use of IT. While the processes are owned by business units (for example, supply chain management is overseen by the logistics department), IT is focused on how those processes work from an end-to-end systems perspective, he says.

The goal: continuous improvement. "I feel good about where we are today because of what I hear from our clients," says Amado. "Are we great? I think we're getting close." **50839**

Measuring Up

CIO Joe Amado gauges his IT team's performance against a number of customer-service-oriented metrics. Here are just a few of the results:

- In 2002, the Philip Morris USA IT group completed 35 major projects; in 2003, it completed 70; in 2004, it will complete more than 100.
- Project-delivery success has improved from about 60% to 85%.
- Over the past two years, average IT employee satisfaction has risen from 2 to 3.93 on a scale of 1 to 5.
- During the same time period, average internal client satisfaction with IT services and value has risen from 2 to 4.
- The company didn't qualify as one of *Computerworld's* Best Places to Work in IT prior to 2002. In 2003, it was No. 43; this year, it's No. 17.
- It placed No. 6 in the career development category in *Computerworld's* Best Places rankings.

- Thomas Hoffman



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PARTNERSHIPS are a fact of life in today's world. Strong IT partnerships have the power to vitalize and even transform a business, provided you follow a clear strategy and manage them carefully.

At the Wharton School of the University of Pennsylvania, we've developed partnerships that not only serve our IT needs but also contribute to the overall mission of the university. The strategy we follow is straightforward enough to work for any IT organization: First, serve the customer — in our case, that's faculty and students — and second, build the brand.

I rely on four basic techniques to maintain and leverage partnerships. And while it's true that businesses come in different shapes and sizes, any company can apply these concepts to create opportunities for growth.

1. Insure the Essentials

The most crucial collaborations are what I call "insurance policies." These are the must-have partnerships that support infrastructure and critical services. Although they're the most obvious kinds of partnerships, they're not necessarily the easiest to nail down. It can take time to find the right fit.

At Wharton, our relationship with IBM fits into this category, because when it comes to our infrastructure, we know the company will be there when we need it.

One of the tough lessons I've learned is that many vendors may not be able to deliver what you need. A few years ago, we temporarily lost our entire application environment, which was running on another vendor's servers. When we really needed top-notch support, it was clear that our old vendor's best just wasn't good enough.

Our partnership with IBM works because the company understands our operation and has the resources to deliver on its commitments. This provides us with the stability and confidence to extend our reach beyond the basics.

2. Promote the Brand

An insurance-policy partnership gives you the freedom to explore other opportunities, like partnerships that can build your brand. An example of this at Wharton is Wharton Research Data Services (WRDS), our financial research tool.

When we first developed WRDS, we were simply responding to the needs of students and faculty, who wanted a comprehensive research tool for financial data. We formed partnerships with



Wharton School CIO DEIRDRE WOODS uses vendor partnerships to serve her customers and build the Wharton brand.

SCOTT NIBAUER

POWERFUL PARTNERSHIPS

Here's how the Wharton School has leveraged IT vendor collaboration to reap unexpected rewards.

BY DEIRDRE WOODS

Standard & Poor's Compustat unit and the Center for Research in Securities Prices at the University of Chicago Graduate School of Business to secure the necessary data, and we developed a unified, Web-based interface to these and other data sets in 1996.

Not long after the launch of WRDS, one of Wharton's top competitors inquired about buying the service for its students. After other schools contacted us, we realized we had a great opportunity to build Wharton's brand. So we pursued additional partnerships with data providers, transforming a tool developed for internal customers into the leading resource for academic financial data.

Today, WRDS serves 115 top-tier academic institutions and is academia's de facto standard for financial data research. Thousands of times each day, when researchers at, say, Harvard or

Stanford look up financial data, it's the Wharton brand they see.

3. Tap New Technology

You can also use partnerships to tap — and perhaps shape — new technologies and products. They can even fuel business transformations to keep you ahead of the competition.

For example, Adobe Systems Inc.'s PDF files are now ubiquitous, but it wasn't that way in 1993, when Wharton was

a beta-test site for Adobe's new Acrobat technology. Our partnership based around the PostScript technology had put us on the inside track by the time Adobe began to explore electronic document technologies. Wharton has been a test site and an early adopter of each new generation of Acrobat technologies, allowing us to integrate them into our operations much more quickly than would have been possible otherwise.

Wharton's relationship with Macromedia Inc. also shows how IT partnerships can transform an organization. Early adoption of Macromedia technologies such as DreamWeaver, ColdFusion and Flash have been key to the development of Spike, our award-winning student intranet. Communications on campus were streamlined and redefined through this early implementation of an information portal. Spike, which has been recognized as an industry best practice, is now in its 10th version. And Macromedia technologies continue to underpin many of Wharton's intranet and Web-based services, including our main Web site and the advanced simulations developed by Wharton's Learning Lab.

These relationships work not just because great products are involved but also because the vendors are willing to be full-fledged partners. Uncovering such opportunities takes trial and error, of course, but the right investment ultimately more than pays for itself.

4. Share the Wealth

We also use IT partnerships to benefit other areas of Wharton in ways that stretch far beyond IT's normal realm. We've called on partners to help serve various school initiatives, and in the true spirit of partnership, the benefits flow in both directions.

For example, our online business magazine, *Knowledge@Wharton*, which has 400,000 readers, recently ran interviews with top executives of some of our IT partners, including Adobe CEO Bruce Chizen and Macromedia Chairman and CEO Rob Burgess.

We've invited a number of CEOs from partners such as Xerox Corp. and Adobe to visit Wharton and meet with faculty and students. We're also looking into setting up career services programs with our partners to give Wharton graduates access to job opportunities at top technology firms while giving our partners access to some of the country's top MBA students.

None of the partnerships I've mentioned are new, and that's no coincidence: Strong partnerships take time to build. Be prepared for some false starts, because it often takes a while to find the right fit for your company. And don't forget that true partnerships are a two-way street. The way to make the relationship work is to ensure that it's mutually beneficial. **Q 50842**

Woods is associate dean and CIO at the Wharton School of the University of Pennsylvania. Contact her at woods@wharton.upenn.edu.

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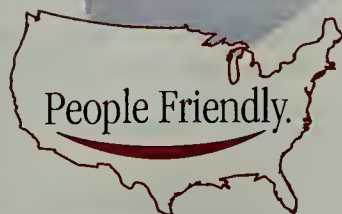
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MICHAEL MORGENSTERN

Finish THE Feud

HOW TO GET USERS AND THE HELP DESK TO PLAY NICELY TOGETHER.

BY ALAN S. HOROWITZ

FEW AREAS in business create more sparks, conflict and frustration than the interplay between tech support and its customers. Expectations on both sides are often unrealistic, and appreciating each other's position is tough. Here are some tips to help take the sting out of the help desk/customer relationship.

EDUCATE: Who, you may ask, has the

time and money to train users? But training pays. The managing director of IT at a New England hospital chain who didn't want to be identified says one of his facilities, a large city hospital with 700 to 800 physicians, does little user training. A smaller community hospital, with about 100 physicians, teaches its staff everything from logging on to putting in orders and getting reports.

The payoff: Tech support gets complaints every day from the city hospital,

but it has had only two in the past six months from the community hospital.

INFILTRATE: Well-placed and well-trained users can help relieve the pressure on both sides. Quadion Corp., a Minneapolis manufacturer of rubber and plastic components, has as its first line of tech support a business person in each department who has been trained by IT to handle support issues.

Called IT coordinators, these users understand software applications and other technical issues typical of their departments and provide tech support in addition to their regular jobs. Only when they can't solve a problem does IT get involved.

According to Steve Paskach, vice president of IT, this decentralized model has shortened the time it takes to solve users' technical problems from four hours to about five minutes, with the coordinators able to handle about 85% of the questions.

AUTOMATE: Simplifying manual processes is what IT is for — and it can head off problems. The IT staff at Harrah's Entertainment Inc., a Las Vegas-based gaming and hotel company, found that when users were on the road, they often had trouble using their laptops to communicate through the company network. "We had to walk people through the process of setting up their laptops innumerable times," says senior vice president of IT and CIO Tim Stanley.

So IT developed a script that users access through an icon at the bottom of their screens. Launching the icon automatically handles all the setup issues. The result: few, if any, support calls.

DIFFERENTIATE: Users should be encouraged to do some things, but others are best left to professionals. They need to know the difference. "The R's are always a good place to start: reboot, restart, replug and retry," says Dave Farrow, director of IT finance and customer support at packaging maker Smurfit-Stone Container Corp. in Chicago.

Cora Calhoun, director of support services at Lanier Worldwide Inc. in Atlanta, concurs, saying that if a user is on a PC, rebooting is a good idea. "For anything else, I would prefer they call."

COMMUNICATE: "You cannot overcommunicate with your user community," says Jim Burdiss, vice president and CIO at Smurfit-Stone. When there's a problem, the company quickly e-mails all users. IT also publishes an annual

Go Proactive

help desk coordinator at Webster University in St. Louis, says it helps to let users know ahead of time what kind of information they should have available before calling the help desk. Here's her list:

- A detailed description of the problem.
- A record of error messages exactly as they appeared on the screen.
- The operating system in use.
- The software and version in use.
- Whether this is a recurring problem.
- User contact or callback information.

report that discusses the partnership between business and IT.

ENUNCIATE: Help desk workers should explain things carefully and encourage users to ask them to repeat things if they don't understand, Calhoun says. Always encourage questions, and never make users feel embarrassed to ask.

REMONSTRATE: Help desk workers should never accept abuse. Frustrated users may take it out on tech support, but workers should politely let users know when they are out of line.

Sometimes, user abuse isn't what it seems. Mary Backus, director of library information and customer service at Middlebury College in Middlebury, Vt., tells of a student who would swear and shout every time she called the help desk. The tech-support people asked a supervisor to talk to the student. The student was shocked to hear about her reputation. She said she loved tech support. She wasn't swearing at them; she was aiming her venom at her computer, which she hated.

RELATE: Even the best help desk staff can't read minds. If no one answers at the help desk, CIO Steve McDowell of Holiday Retirement Corp. in Salem, Ore., has a tip for users: Leave a message. "If we don't receive a message, we can't help," he says. "And users are almost always more frustrated the second time they call."

RECIPROCATATE: Finally, when the help desk solves a problem, users should do what their mothers taught them: say thank you. ☎ 50854

Horowitz is a freelance writer in Salt Lake City. Contact him at alan@ahorowitz.com.

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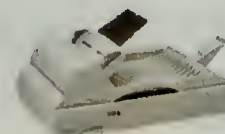
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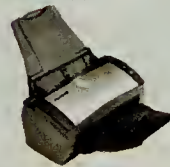
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WHAT IT'S WORTH

Average IT annual salary: \$63,301
Contract: \$86,475
Permanent: \$61,933

CONSULTANT COUNTDOWN

Permanent jobs: 33,361
Contract jobs: 26,463

BASE: 59,167 job listings on Dice.com

SOURCE: The job, location and salary information is based on November job postings on Dice.com.

Holiday Bonus? Humbug!

MOST U.S. COMPANIES won't award a holiday bonus this year, according to a survey of 271 U.S. companies by Hewitt Associates Inc., a human resources services firm in Lincolnshire, Ill.

But the percentage of organizations offering performance-based bonuses has continued to rise, from 59% in 1995 to nearly 80% in 2004.

Hewitt's study found that 85% of

companies providing holiday bonuses budgeted less than 1% of payroll expenses for these awards, while 9% budgeted 1% to 2% of payroll. The monetary value of these awards varies by type. For example, companies plan to spend a median of \$550 per employee on cash awards and a median of \$25 on both gift certificates and food.

51018

REASONS FOR ELIMINATING HOLIDAY BONUS:

Cost	65%
Entitlement issues	37%
Development of pay-for-performance programs	28%

REASONS FOR CONTINUING HOLIDAY BONUS:

Appreciation	54%
Tradition	24%
Morale	17%

HOLIDAY BONUS AWARDED?



ASK A PREMIER 100 LEADER

Dan Agronow



Q&A

TITLE: Vice president of technology

COMPANY: The Weather Channel Interactive Inc., Atlanta

Agronow is this month's guest Premier 100 IT Leader, answering readers' questions about new job opportunities and skills development. If you have a question you'd like to pose to one of our Premier 100 IT Leaders, send it to askaleader@computerworld.com and watch for this column each month.

In the current environment of outsourcing and jobs going overseas, what are the new opportunities in the IT market for the next five years? I see growth and a premium paid for people focused on security and, as always, database work. I

also see a premium for individuals with cross-platform experience – for example, Linux (Unix) and Windows. And I see a severe shortage of Flash programmers – not designers, but coders.

I'm a J2EE programmer. I have more than two years of experience, but I'm still not able to find a job. I want to take an IT course that might help me. Can you make a suggestion? Yes: Broaden your skills. It would be helpful if you were proficiently able to code in other areas, such as HTML, Flash, JavaScript and C++, for example.

I'll be 28 when I graduate with a bachelor's degree, and I've also done a short technology internship. Will my age hurt my chances of landing an entry-level job? Also, which fields (like database administration or programming) do you think will remain somewhat immune to offshoring? No, your age won't hurt you. But in regard to offshoring, no area is completely immune. That depends on the philosophy of the company at which you work. However, of the two choices you provide, I would expect that database administration jobs would be less likely to be moved offshore.

H-1B Visas Upped

Responding to pressure from high-tech businesses and industry groups, Congress approved an increase in the number of H-1B visas to be awarded in the current fiscal year from 65,000 to 85,000 but restricted the additional visas to specially qualified students. The legislation, included in the omnibus budget bill, reportedly allows foreign-national master's and Ph.D. graduates of U.S. universities to apply for the additional H-1B visas.

High-tech trade groups and businesses such as Microsoft Corp. and Intel Corp. have been urging Congress to raise the cap, while organizations representing IT workers wanted Congress to keep this year's cap at 65,000.

That cap was reached on Oct. 1, the first day of the federal government's 2005 fiscal year. It was the first time that the visa quota had been met so quickly.

— Patrick Thibodeau

IT Security Boom

IDC predicts that the worldwide population of information security professionals will grow at a 13.7% compound annual rate to reach more than 2.1 million in 2008. The following points are from its 2004 Information Security Global Workforce Study of 5,371 IT security professionals:

93% OF SECURITY HIRING MANAGERS THINK CERTIFICATIONS ARE IMPORTANT.

THE TYPICAL INFORMATION SECURITY GROUP:

- Employs 10 full-time and five part-time staffers.
- Reports to IT.
- Is ultimately directed by the CIO.

THE AVERAGE IT SECURITY PROFESSIONAL:

- Has 13 years of general IT experience plus seven years in security.
- Holds multiple security-related certifications, including at least one that's vendor-neutral and one that's vendor-related.

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EVENTS

IT Service Management

■ Feb. 6-9, Orlando

Sponsor: Pink Elephant Inc.

The IT Service Management Conference and Exhibition focuses on best practices in ITIL (information technology infrastructure library), the IT services management framework. Topics include ITIL 101, best practices for project management, service-level management, support tools, change management and case studies.

www.pinkelephant.com

Global Leadership

■ Feb. 16-18, New York

Sponsor: The Conference Board

The 2005 Leadership Conference on Global Corporate Citizenship focuses on strategic management. Topics include challenges and responsibilities of globalization; navigating numerous codes, ratings, standards and indices; and being a corporate citizen offshore.

www.conference-board.org

Women's Leadership

■ March 15-16, New York

April 13-14, San Diego

Sponsor: The Conference Board

The 2005 Women's Leadership Conference focuses on finding women to fill the human resources pipeline, career planning, creating strategic alliances, negotiation and tools to measure success.

www.conference-board.org/women.htm

Outsourcing and Offshoring

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BART PERKINS

Don't Outsource These!

WHEN A COMPANY considers outsourcing, there are many discussions regarding the benefits of contracting out specific functions or processes, but it's equally important to discuss what your company should *not* outsource.

Not all functions are viable candidates for outsourcing. There's an important distinction between the operation of a function and its management controls. If you outsource a function's management controls, you essentially abdicate responsibility for its execution and day-to-day management. This is particularly true in offshore situations, where "out of sight, out of mind" is a common pitfall. Never outsource responsibility for the effectiveness and overall success of a function.

Many management controls come under the auspices of project, program and supplier management positions. As IT builds less and buys more, these specialized skills are critical to your organization's success. Deciding to keep these functions in-house doesn't preclude augmenting your staff with outside resources, however. Consultants provide valuable expertise, independent objectivity and staffing flexibility.

Here are some other functions you shouldn't outsource:

■ **Strategic planning.** You have to establish your own strategy, plan and architecture. Companies often hire outside specialists to assist with this process, but you and your staff must ensure that it accurately reflects the direction in which your organization wants to move. Having your staff participate also builds buy-in and gets

commitment to the plan's implementation.

■ **Activities subject to massive business change.** Every contract needs to be developed with enough flexibility to protect your business interests when change occurs. In times of dramatic business change, it's nearly impossible to anticipate and provide contingencies for every possible outcome. Moreover, if you try to provide for too many contingencies in the contract, the outsourcer will have to charge you for its flexibility, and the costs may become prohibitive.

■ **Poorly run systems or processes.** In general, outsourcing a broken process or system means it will still be broken. Fix it before you outsource it. One exception is when you are able to adopt the outsourcer's process or system unchanged in order to solve a problem. For example, one company had multiple payroll systems in its business units. Adopting an outsourcer's payroll system allowed the company to get around the political infighting and standardize the payroll process across the enterprise. But be cautious about accepting someone else's solution to your problem.

■ **Critical systems and processes.** Business processes and systems that differentiate you from your competition should be kept confidential. You need the required technical skills and deliv-

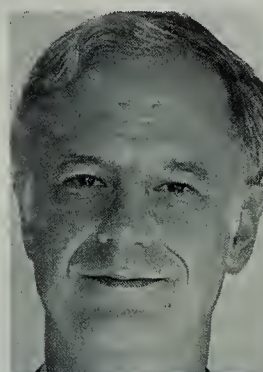
ery capability in-house, with minimal assistance from outside resources.

■ **IT customer relationship management.** You need to own the relationship with in-house and external customers. Your outsourcer may help customers with requirements and implementation, but you're ultimately responsible for the customer's satisfaction and the project's success. If you neglect customer relationships, you may get blindsided. One CIO hired an outsourcer to upgrade Oracle Financials in a business unit. In the process, the outsourcer convinced the business unit to switch to PeopleSoft. The company's financial systems are no longer standardized and the CIO has support issues.

■ **Compliance management.** The recent increases in regulatory mandates make compliance management too critical to outsource (though you may need consultants to develop compliance programs or audit financial systems). For example, when your CEO and CFO sign their Sarbanes-Oxley statements, they need you to vouch for the integrity of the IT systems. No one else can provide this assurance without exposing your company to risk.

■ **IT management support.** The functions that help manage the IT organization need to stay in-house in order to be effective. Financial management, people management and security management shouldn't be outsourced.

Determining what to retain inside your organization is as important as determining what to outsource. In addition, the more critical a function is to your business, the more crucial it is to keep the associated management controls in-house. Leverage the success of your outsourcing efforts by selecting the right things to outsource and the right things to keep. ☎ 50906



BART PERKINS is managing partner at Louisville, Ky.-based Leverage Partners Inc., which helps organizations invest well in IT. He was previously CIO at Tricon Global Restaurants Inc. and Dole Food Co. Contact him at BartPerkins@LeveragePartners.com.

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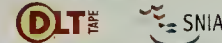
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Advertising Supplement

IT Careers in Insurance

While IT professionals continue to monitor a fairly slow job market, there's one industry segment that is seeing heightened competition for filling jobs. Andy Baker, human resources senior manager for Allstate Insurance Co., says in Chicago-land candidates are again seeing multiple offers. "One of the biggest challenges we have, as an industry, is building awareness. When we go to career fairs, individuals say things like 'Allstate does technology? I thought they just hired agents'," Baker says.

Baker's comments are echoed by two of the country's most technologically savvy insurance companies – Progressive and Nationwide. Between the three firms, nearly 1,000 job openings exist for the coming months. Research indicates that the insurance industry is one of the industries most likely to invest in technology, and tech leaders estimate that between 3 and 4 % of revenues are invested in new capabilities each year.

Nationwide Property & Casualty CIO Mark Torkos says the primary reason the industry is a good choice for IT professionals is that the sector has been relatively stable, the use of technology is aggressive, and there remains plenty of room for technology advances. "Technology provides the enablers for how we (as insurers) improve growth and profitability," says Torkos. "The nature of the projects we're

working on is increasingly complex, and we're looking to do these with a faster time to market. That really drives up the skill set and competency required."

Nationwide employs 5,000 IT professionals in the Des Moines and Columbus (OH) areas. The company is committed to development for its staff, including measuring how many jobs and promotions are filled from within as evidence of success. The skill sets include program management, object-oriented skill sets, requirements engineering and architecture, as well as information security. "We want to have all the talent we need (internally)," adds Torkos.

Progressive, which is based in Mayfield, OH, has projects lined up for 2005 that range from a new billing system to building a second major data center and application development center. Progressive has claimed numerous awards for its use of technology, beginning with its position as the first auto insurer to launch a website and the first to receive a customer payment via a personal digital assistant (PDA).

Frank Holowach, business IT director at Progressive, says competencies include "people intimately involved in

understanding the real business issues facing the company." This includes speed of service to the customer, enabling agents to open policies for customers more easily and faster and tools that give customers more control over their insurance policy. "Creativity and business go hand in hand," says Holowach. "We promote this in our culture and look for it when hiring. We look for strategic and creative people – doers and leaders – who challenge the status quo, take risk and initiative and thrive in a free-thinking, creative environment."

Allstate's Baker says the insurer will continue pushing the envelope, requiring additional IT professional staff members in the areas of application development, dot-net technology, software evaluation/test, technical architecture, database administration and information security. "We are all looking for the same people – people with insurance or financial services experience," he says. "It is a different type of data, and that data is an asset."

As with all the insurers, Allstate is looking for strong leaders and project managers who have experience in the full lifecycle of application development and implementation. Another characteristic being sought is cross-platform experience as different parts of the company have legacy, client/server and web-based architecture.

For more information about IT Careers advertising, please call: 800.762.2977

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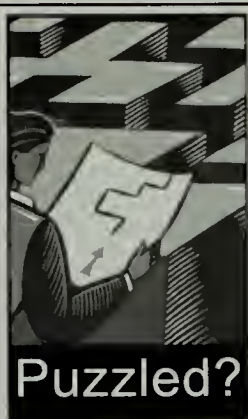
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Vega, a NJ based computer consulting company, is currently staffing for long term stimulating projects throughout the US. We are hiring professionals with any of the following skills: Oracle 9i/AS, PowerBuilder, Java/EJB, Cobol/DB2, AS/400, C++, VB, Sarbanes Oxley, PM/Claims Processing, Documentum. Please submit resumes to pperanio@vegaconsulting.com

Software Engineer: (Job in Arlington, TX): Research, design, develop, test operating systems-level software, compilers, network dist s'ware. Set operational specs, formulate/analyze s'ware req. Apply principles/techniques of comp sci, engineering, math anal. 8:30a-5:30p, Req: Master's in Elect Eng, Computer Eng or closely related & 2 yrs exp. Resume: N Tempia, Allen Systems Group, 12700 Sunrise Valley Dr, Reston, VA 20191.

SOFTWARE ENGINEER, Senior Level (Yonkers, NY)-Full Time. Develop application interface screen in ASP.NET code using GUI tools that execute complex VB.NET & JavaScript validation routines. Write T-SQL stored procedures according to high level specification & design conventions. Build internet applications in the medical care arena, moving from prototype to execution with support to 200+ sites. Supervise a team of 4 programmers. Bachelor's degree or equivalent in Comp. Sci, CIS, MIS or related field req'd. 4 yrs exp. req'd. At least 2 of those years in healthcare IT industry, developing .NET. Send CV to Emerging Health Information Technology, 3 Odell Plaza, Yonkers, NY 10701, Fax 914-457-6206, Attn: David Fletcher.

Livermore Software Technology Corp (LSTC), owner of LS-Dyna, LS-PrePost, LS-Opt, is expanding worldwide & seeks software developers in area of multimaterial Eulerian fluids. Minimum qualification is BS/MS with 1-5 year experience. Please mail resumes to 7374 Las Positas Road Livermore, CA 94550. EOE.

Computer Professionals, Product Engineers wanted by TAC Automotive to design and develop converter-Clutch Control, torque converters using CAE, AutoCAD tools. Must have System or Computer engineering degree with related experience. Please send resumes to: jobs@tacautomotive.com. EOE. No calls.

Research Scientist

Conduct research in image processing for still & video image compression & data streaming; investigate current compression standards; design image/video codec systems, block diagrams for medical imaging applications; design novel compression techniques for human anatomical & physiological data; develop preprocessing & post-processing scheme of noisy sources. Ph.D. in EE. Exp. in JPEG, JPEG2000, H.263, H.264, MPEG 1/2/4/7/21, DCT, wavelet transform. Send resume w/ salary req. to Tom Menten, Crowley Davis Research Inc., 280 S. Academy Ave., #140, Eagle, ID 83616.

SENIOR SYSTEMS ANALYST to analyze, design, develop, test and implement application software systems using Java, JSP, Oracle, TIBCO Portal Builder, TIBCO Rendezvous, TIBCO Active Database Adapter, TIBCO MessageBroker and SQL Server on Windows platform. Require: Bachelor's degree (or equivalent) in Computer Science, Management Info. Systems, or a closely related field with 2 yrs of exp in the job offered or as a Software Engineer; Each three years of progressively responsible work experience in the field will be considered equivalent to one year of college education. Competitive salary offered. Send resume to: Peter Forsstrom, Macquarium, Inc., 1800 Peachtree St., NW, Suite 250, Atlanta, GA30309; Attn: Job RN.

GlobalSource IT, Inc. (GSI) is a recognized leader in the specialty ERP professional services market. We seek SAP, PeopleSoft, Oracle, J.D. Edwards or Baan consultants. Candidates must have BS/MS with IT experience. Competitive salary with full benefits. Please resend resumes to referral@global-sourceit.com. EOE. No calls.

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Systems Software Engineers Research, design, develop, and test operating systems-level software. Set operational specifications and formulate and analyze software requirements. Analyze information to determine, recommend and plan installation of a new system or modification of an existing system. Consult with engineering staff to evaluate interface between hardware and software, develop specifications and performance requirements and resolve customer problems. Design and develop software systems, using scientific analysis and mathematical models to predict and measure outcome and consequences of design. Modify existing software to correct errors, to adapt it to new hardware or to upgrade interfaces and improve performance. Use a variety of tools. Master's degree or foreign edu. equiv. of same and 1yr exp. req. Send resume to Cadre Systems, LLC 570 Kirts Blvd. Ste 233 Troy, MI 48064

IndusRAD seeks engineers & IT staff to design & develop application software for Marine engines & advanced diesel engine using ANSI C program. Write test plan & procedures. Must have MS/BS with exp. Good wage with benefits. Please send resume to info@indusrad.com. EOE.

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KPK Technologies Inc has immediate openings for IT consultants to fill various positions. Duties include: customize applications, database system, software using Java, DB2, Oracle, VB, Weblogic/WebSphere, etc. Require BS/MS with experience. Good wages. Please contact Info@kpk-tech.com. EOE.

ShellSoft seeks IT professionals (programmer/system analysts, DBA, software engineers), project engineers using Oracle, SAP, SQL, Java, C/C++. Minimum requirement is MS/BS with IT experience. Some positions require travel. Please send resume to jobs@shellsoftinc.com. EOE.

Internet company seeks Ph.D. Research Engineers responsible for innovative research. Interested applicants should send resumes to: K. Wolfe; 1600 Ampitheatre Parkway; Mt. View, CA 94043. Visit www.google.com for additional information.

IT professionals wanted by Ciena Healthcare Management to design & develop LAN & WAN, handle DSL and CISCO Routers, SQL Server. Must have BS/MS with IT exp. Please send resumes 4000 Town Center, Ste. 380, Southfield, MI 48075. Competitive wages. No calls, EOE.

HIDEF Technologies seeks IT Consultants. Duties: design, develop, administer & implement software, computer & database systems per clients' business needs using various skills such as Oracle, DB2, Java, EJB, WebTech, SAP, VB, C/C++, etc. Travel required. Apply at info@hideftech.com. EOE

Solidworks Corporation, a market leader in software for mechanical design, analysis, and product data management is seeking a Manager, 2D Interoperability at our Concord, Massachusetts headquarters: - Candidate will design and implement advanced features for Solidworks' portfolio of Computer Aided Designed (CAD) system software. Provide CAD systems architecture, user interfaces, API, drawing creation and date translation; write translation software for major CAD applications; program software for a Solid Modeler. Position requires a Bachelor's degree in Computer Science, Mechanical Engineering or closely related field of study and 1 year of experience as a CAD Software Engineer or CAD Software Manager. This experience must include experience software programming for a Solid Modeler. Must include experience writing translation software for major CAD formats and working in 2D Interoperability between CAD modelers. Interested applicants should apply on-line only at: mgr2dint@solidworks.com

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Programmer-Analyst needed for Software Development, Services & BPO firm located in Burlington, VT. Job duties include: Develop and design computer applications for clients located throughout the U.S. Write data acquisition applications in a Windows environment. Write device drivers. Develop libraries (DLL's) that interact with device drivers and data acquisition applications. Develop firmware. Work with Real Time Kernels and developing Real Time Software. Applicant must have B.S. degree in Computer Science, Business, Math or Engineering. Applicant must also have 6 mos. exp. in the job duties described above or in any computer related occupation which includes the skills listed above. 40hrs/wk, 8am-5pm, M-F, \$60,000/yr. Send resumes to: Job No. 29981, P.O. Box 488, Montpelier, VT 05601-0488.

Programmer Analyst needed for Software Development, Services & BPO firm located in Burlington, VT. Job duties include: Analyze, design, develop, test, and document computer programs and applications in a web-based environment for clients located throughout the U.S. Use iLog, XML, Java, J2EE, WebLogic, and Oracle. Applicant must have B.S. degree in Computer Science, Business, Math or Engineering. Applicant must also have 2 yrs. exp. in the job duties described above or in any computer related occupation which includes the skills listed above. 40hrs/wk, 8am-5pm, M-F, \$60,000/yr. Send resumes to: Job No. 29787, P.O. Box 488, Montpelier, VT 05601-0488.

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Software Engineer (Inventory): Develop and maintain inventory planning, control system ERP package. Maintain files, database, spread sheet. Develop procedures and flowcharts. Maintain adequate control on inventory turns for multi product multi location system and provide adequate customer satisfaction. Develop module for purchasing and freight cost optimization. Develop ERP package for similar areas. Advance knowledge and experience in VB, SQL files, MS Access, MS Excel is essential. Req. Bachelor's in Comp. Science or Engg. and 1 yr of exp. Send Resume to: Sue Palmer, Star Pipe Products, Ltd. 4018 Westhollow Pkwy, Houston, TX 77082.

Software Engineer - Applications
Design, develop, test and deploy customized IT applications based on a client's needs and environment. Prepare and test cases and scripts, test execution, perform application performance tests. Make changes based on client reviews, provide client training following product deployment and presentation. Bachelors degree in CS or Eng. or related field and 2 yrs. of exp. or 2yrs. of exp. in a related position w/ability to use: UNIX, IBM Mainframe, Toad, Java, C/C++ & Oracle9i. 40.0 hrs/wk 9:00 AM - 6:00 PM **Applicants send cover letter and resume to:** Trans Atlantic Systems, 1945 Cliff Valley Way, #270, Atlanta, GA 30339, ATTN: S. Nagarajan.

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The screenshot shows the ITcareers.com homepage. At the top, it says "ITcareers.com" with navigation links: "find a job", "features & tips", "post a job", "advertiser tools". Below this is a "Welcome to IT Careers" section. On the left, there's a "SALARY SURVEY" section with a "100 BEST PLACES" badge. In the center, there's a "find a job" section with a search bar and filters. On the right, there's a "post a job" section with a "Looking for a new IT career?" badge. At the bottom, there's a "features & tips" section and an "advertiser tools" section.

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Software Dev. Co. req. Software Engineer w/MS & 1yr exp. & Programmer Analyst w/BS & 24 mos. exp. in foll: Visual Basic, Oracle, PowerBuilder, Sybase, Java, Unix, C++, AS/400, CL/400, SQL Serv, Synon, Cobol, Lotus Notes, SAP, ABAP, PEOPLESOFT, Financials, Java Script, HTML, DB2, Corba, CICS, ILE, RPG, EJB, Siebel, JD Edwards, WebLogic, Rational Rose. Equiv. Deg. & exp also accepted. Travel & Relocation req. anywhere in U.S. Send res. to Attn: Recruiter, Allied Informatics, Inc, 9111 Cross Park Dr., Ste. D-200, Knoxville, TN 37923.

Soft. Engg/SAP Consultants/Bus. Syst. Analysts/Bus. Analysts Needed. Sev. Positions available for candidates possessing MS/BS or equivalent and/or relevant work experience. Mail resume, ref. and sal. req. to: Seal Consulting, Inc., 101 Fieldcrest Ave., Raritan Plaza III, Edison, NJ 08837.

Software Applications Engineer - Assigned as IT Consultant with project management responsibility, to design, develop and modify JSP, Servlets and software for web and general computer applications utilizing J2EE, STRUTS, Oracle/SOL and Java SDK. Multiple Openings Available. Requires Bachelors or equivalent-level degree in Computer Science, Computer Engineering, Mathematics or closely related field, and three years experience as Java/J2EE Developer in Web Applications. Send resume to Rick Heinlein, Ferguson Consulting, Inc., 12444 Powerscourt Dr., Ste. 235, St. Louis, MO 63131

2 Full time positions to work as System Analysts, with experience in all phases of SDLC using J2EE, UML, ANT, JProbe, Introscope, Grinder, Cruise-Control, XML, XSL on Windows, AIX. FileNet, P8 (AE, CE, PE, WAT), SWT, ETL Datastage, SWING, LR, QTP, WR, Shell Scripts, Test Director, Clear Quest. Prior direct implementation using the protocols TCP/IP, UDP, SMTP, POP, DNS, Telnet. Requires Masters degree in CS or CIS and 1 year of experience in job offered. Applicants send resume to Pyramid Consulting Inc, 8665 Providence Drive, Noblesville, IN 46060.

Support Engineer (Madison, WI)- Engineering development including integration with Systems Engineering and Platform Engineering. Manage processes and builds. Maintain licensing system and creation of licenses for customers. Develop software for build system which compiles source code, configuration and upgrade elements to generate complete deployment package. Will utilize object oriented programming, Linux or Unix, relational databases, and normalization. Will utilize hardware, databases and operating systems in Enterprise environment. Provide technical support to systems engineering team. Must be willing to be on call 24 x 7. Must be willing to travel locally and internationally.

Must have a Masters degree or foreign degree equivalent in Computer Science, Engineering, or related field OR Bachelor's degree or foreign degree equivalent in Computer Science, Engineering, or related field AND 2 years of experience in a software development position. Educational coursework must include calculus and differential Equations. Education or work background may have been obtained concurrently and must include: (i) object oriented programming; (ii) relational databases; (iii) normalization; (iv) utilizing hardware, databases and operating systems in Enterprise environment; (v) Linux or Unix; and (vi) Java. Must have legal authority to work in U.S. Send resume to P. Fetterolf (REF:SE), Emageon UV, Inc., 1200 Corporate Dr., Ste. 400, Birmingham, AL 35242.

Computer Programmer Analyst Full time position to work as Computer Programmer Analyst, needs Implementation and Development Experience using ECMAP and Gentrans Suites, EDI Standards (ANSIX12, HL7, EDIFACT), HIPAA ToolKit, Experience in developing ANSI Transaction Maps like ANSI 834, 278, 820, 834, 837Prof, 837Inst, 270 / 271, with proficiency in Implementation of Siebel, Actuate Developer workbench and with experience in .Net, JAVA, J2EE, XML, EJB, ORACLE, SOL Server, PL/SOL, SYBASE, WebSphere, WebLogic, JBoss, Struts Framework, MVC, RationalRose, UML and with Testing Tools like JUnit, WinRunner, LoadRunner. Requires Bachelor's degree in Engineering or CS or CIS or equivalent and 2 years of experience in the job offered. Applicants send resume to Pyramid Consulting Inc, 8665 Providence Drive, Noblesville, IN 46060

Software Engineer: Design, plan, develop, document and test computer programs, applying knowledge of programming techniques and computer systems. Analyze business, scientific and technical problems for application to data processing systems. Encode equations for processing by computer systems using knowledge of C, C++, JAVA, Visual Basic 6.0, Oracle 8.0, SOL Server 2000 ASP, VB Script, COM+, VSS and the application of computer software tools to system analysis and design. Requirements: Bachelors Degree or equivalent (3 yrs. exp. for each yr. of college) with 2 yrs. exp. as a software engineer or programmer. Must be Microsoft Certified Solutions Developer. Salary: \$66,730/yr. 40 hrs/wk. Apply: Site Manager, Beaver County CareerLink, 2103 Ninth Ave., Beaver Falls, PA 15010-3957. Refer to Job Order No. WEB 477746.

Senior Database/OLAP Architect - Raleigh, NC-Responsible for all aspects of database administration & architecture including reliability, availability, scalability. Perform corporate & database security, development, staging, & server environments specifically pertaining to all OLAP cube & data mining development & maintenance. Responsible for maintaining the public database & corporate database. Provide maintenance & administration of development, staging & production servers. Provide OLAP/Data warehousing implementation along with Proclarity Reporting tool. Perform Database Schema Clean-up from SQL 7.0 to SQL 2000. Perform database modeling & design for new products & integration with current environment. Apply service packs & maintain database server's health. Perform database & log backups & restoration, backup strategies, scheduling backups, & implement disaster recovery plans when necessary. Mon-Fri, 8am-5pm 40 hpw. \$73,000/yr. Regs: Masters in Computer Science or Engineering & 2 yrs exp in position offered or 2 yrs exp as Database Programmer or SOL Architect. Exp must include SQL Server, VisualBasic, ASP programming language with COM+/DCOM & MS SOL Analysis Server. Applicants should submit resume to Employment Security Commission, 3351 Carl Sandburg Court, Raleigh, NC 27610 or apply to nearest NC Employment Security Commission Office. Resumes must include applicant's Social Security Number, Job Order #NCT252105 + DOT Code 039.162.010.

Database Analyst/Administrator: Study and analyze logical and physical design of database using ERwin and Visio 2000 Data Modeler; build entity relationship diagrams and SQL and UNIX Shell scripts. Install and configure Oracle 9i Real Application Cluster and Data Warehouse Databases, Internet Application Server 9IAS, Appworx 5.1 Scheduler, TOAD 7.6 on HP Tru65, Sun Solaris 2.8, AIX 5.1, Linux and Windows platforms. Perform online hot and offline cold backup using tools like Recovery Manager and Veritas. Performance tuning of database and load balancing of multi-terabytes database system. Optimize new features and automate maintenance tasks. Maintain data integrity and consistency. Implement security to industry standards. Requirements: Bachelors Degree or equivalent (3 yrs. exp. for each yr. of college) in Engineering, Information Systems, Computer Science, or related field. 4 yrs exp. as database administrator, computer programmer, software engineer or programmer analyst. Salary: \$60,000/yr. 40 hrs/wk. Apply: Site Manager, Beaver County CareerLink, 2103 Ninth Ave., Beaver Falls, PA 15010-3957. Refer to Job Order No. WEB 477737.

Computer Programmer/Analyst- System analysis, design, programming, debugging and testing for software development. Requires a bachelor's degree, foreign bachelor's, or equivalent and two years of experience in C++, .NET, JAVA, J2EE, and Oracle. We have positions throughout the US and job will require extensive travel or relocation to the job location depending on duration of the project. Please forward the resumes to: IT Technical Recruiter, Niagara Consulting Group, Inc., Tech-Recruiter@niagaraconsulting.com. Reference Code: WEB0922.

Computer Professionals

We have openings for the following positions to work at client sites throughout the United States. Send Resumes to: Weblent Technology Inc, 259 A Main St. Suite #5 Nashua, NH 03060

Java Programmer Analyst: Design and develop software applications using Java, JDBC, J2EE Websphere, Tomcat and XML. Perform object-oriented methodologies and problem diagnosis.

Visual Basic Programmer Analyst: Design, develop and test software applications using SOL, Server, VB, ASP, .NET and Crystal Reports. Involved in trouble shooting, query optimization, testing and production support.

Mainframe Programmer Analyst: Analyzing the business needs, writing the technical specifications and testing the application using Cobol, DB2, CICS, FileAid and MVS/ESA. Must be able to Performance Tune, Troubleshoot and production support.

Oracle Programmer Analyst: Design, develop and customize oracle applications using Oracle, Forms, Reports, stored procedures and PL/ SQL. Solving system issues and performance tuning.

UNIX Systems Engineer: This position involves the analysis and proposal of system hardware, software, and system solutions for centralized HP-UX, AIX and NT enterprise-class computing platforms, unning software applications in an Oracle environment.

SAP Functional Consultant: This position involves configuration of WM, MM and TF Technology implementation. Hands on experience using SAP modules like Material management and Sales and Distribution.

QA Tester Design, develop and prepare the test scripts for the business applications using the testing tools Winrunner, QTP and Test Director on Windows NT/Windows2000/UNIX operating systems.

Bethesda MD Software Consulting Company seeks Sr. Software Analyst to design/develop/test deploy custom ERP solutions using Java, J2EE technologies EJB, Servlets, Java Beans, JSP, JDBC, RMI, JAXP, Xdoclets, and .NET technologies ASP, .NET, ADO.NET, C#, data Base including SOL server, Mysql, SAPDB, Oracle and writing stored procedures using SQL/PLSQL; UML, ERD diagrams, req. Min Master degree in computer science (or eqv.) 2 yrs in-job/job related exp. Sun Certified JAVA Programmer, Sun Certified Web Component Developer; Brainbench Certified C++ programmer, Should also have experience in Struts, SQL, javascript, Hibernate, Crystal reports, C/C++, PHP. Resumes: 4905 Delray Ave. #507, Bethesda, MD. No calls. EOE.

ATM Leader Manage team of software developers for ATM driving solutions, quality assurance, functional delivery; enhance software quality using Java, Python & Wise; SQL Server, Oracle & DB2 databases; Windows/Linux (Redhat/SuSe) OS; settle/reconcile transactions. Req. MS Comp. Sci. or equiv. & 2 yrs. exp. in job or 2 yrs. exp. as Software Eng. or related. Resume to HR, Mosaic Software 800 Fairway Dr., Ste. 198 Deerfield Beach, FL 33441. No calls.

Computer Support Specialist wanted by TripodSoft, Inc (NJ) to support TripodSoft software developers on hardware, networking & operating systems. Requires MS in Comp Sci or related field with min 3 yrs exp in install, config & admin of LAN/WAN, AIX & PBX. Must be familiar with ERP, EAI, Websphere, OnDemand & DB2. Email resume to: jobs4tripodsoft@yahoo.com

Consultants: Design, develop, test, document & maintain web-based, object-oriented bus. apps for Intel Win 2000 Server, IBM Websphere/Weblogic, ZEUS Channel Server using Java, C++, C#, MS-SQL, XML, SOAP, JSP, ASP, & HTML on J2EE, .NET platforms. Req: BS comp. sci, engg, or related & knowledge of Intel/Windows 2000 Server, Java, ASP, & HTML. Resumes to: N. Green, S1, Inc., 3500 Lenox Rd., Suite 200, Atlanta, GA 30326

INTERNAL TECH CONSULTANT Database dvlpmnt, admin, & maintenance for core manufctng system. Analysis & tech design of IT manufctng solutions. B.A. Comp Science/ Engin or equiv & 2 yrs. database dvlpmnt experience, must be proficient in MS SQL Server, MS DTS, Transact-SQL, Oracle & bus intell. Apply to: Harland Co., Attn: Caryl James, 2939 Miller Road Atlanta, Ga 30035.

Management Analyst - 8a-5p; 40 hrs/wk. Evaluate business organization/management data, information flow, operating procedures, records, design applications & prep operations manuals for management using systems analysis & design, database management systems, Visual Basic, C++, & AS400. Bachelors or equiv degree in Bus. Admin., Management Information Systems, Comp. Sci. or Engineering or related field. Resume: S3 Group, Inc., 4124 Chattahoochee Trace, Ste 103, Duluth, GA 30097.

Multiple openings for software engineer/consultants, programmer analysts, network engineer, dba, project engineer/manager, program mgr (Biz Dev). Some positions req Bachelor (or equiv.) while others req Masters (or equiv.) in a related field. We will accept the foreign edu. equiv. &/or its equiv. in edu. & exp. Exp. req. will depend on position. Mail resumes to HR, Harvard Soft, 150 Westford Road, Suite # 28, Tyngsboro, MA 01879

Performance Measurement Consultant wanted by software comp in NYC. Analyze, develop & consult on MIS software for asset mgmt clients. Internal & external consultation. Resumes to StatPro, Inc., 185 Madison Ave, NY, NY 10016.

Systems Engineer, Database. Must have BS or equiv. in Comp. Sci. or Info Sys. and 1 yr exp. Fluency in Japanese reqd. Send resume to: Mr. Marx, Hartz Mountain Corp, 400 Plaza Dr., Secaucus, NJ 07094.

Websphere Administrators to configure, install and administer WebSphere Application Server, IIS, Nokia Wap Serve etc; create and manage the connection pools of the WebSphere and cluster; run korn jobs in AIX to generate reports; analyze UML design patterns using Rational Rose; perform appl support in testing, identifying issues and tracking bugs and solving problems. Require BS or foreign equiv in CS/Computer Engg with 6 months exp in Websphere administration. Travel involved. F/T position. competitive salary. Resume to: HR, Koneru Software Services, 333 Swanson Dr., Ste 124, Lawrenceville, GA30043.

Wireless Test Engr. Conduct wireless product testing & requirements analysis, develop test plans, generate test cases & automate testing procedures for GSM & GPRS. Bach's deg in Comp Sci, Physics or Elec Engrg reqd + 5 yrs exp. Fax resume to PMCDU, 770-338-6001, Attn: D. Greer, PC

Programmer Analyst
Design and develop custom accounting software to serve as Virtual Private Network by using C#, ASP.net, VB.net and MS-SQL, Java and Oracle 8i. Analyze business procedures, solve problems, redefine data and convert data to a program-mable form by using MS Project, Excel & Access. Req. Bachelor in Comp. Science or Engg. with 1 yr of exp. Send resume to HR, TTSF LP # 5, 10110 Westview Dr., Houston, TX 77043 or E-mail: ttsf_jobs@sbcglobal.net

Programmer Analyst
Design and develop custom accounting software to serve as Virtual Private Network by using C#, ASP.net, VB.net and MS-SQL, Java and Oracle 8i. Analyze business procedures, solve problems, redefine data and convert data to a program-mable form by using MS Project, Excel & Access. Req. Bachelor in Comp. Science or Engg. with 1 yr of exp. Send resume to HR, TTSF LP # 5, 10110 Westview Dr., Houston, TX 77043 or E-mail: ttsf_jobs@sbcglobal.net

Programmer Analysts to analyze, design, s/w apps using Java, ASP, Servlets, JDBC, HTML, Oracle, PL/SQL, Dev 2000, Forms, Reports Windows OS; design web pages dynamically using JavaScript; design database structure using UML; provide on site maintenance support, debug, modify, fine tune and perform code optimization. Require: BS or Foreign equiv with concentration in CS/Science/Engg (any branch) with 2 yrs exp in IT. Competitive salary, F/T positions. Travel involved. Resume to IOR Technologies, Inc. 2400 86th st, Ste12, Urbandale, IA50322. Job ID IORPA1104

Senior Prog/Analysts to lead teams to analyze, design, enterprise applications with OOAD methodologies using J2EE, JDK, JDBC, EJB, Java, HTML, JavaScript, XML, Weblogic, Websphere, Oracle, MS SQL Server on Windows environment; evaluate user requests for new programs or complex modifications to existing programs; test and debug programs; monitor ongoing program and system performance; provide training to team members. Require: BS or foreign equiv. in CS/Engg (any branch) & 3 yrs exp in IT. Competitive salary. Travel involved. F/T. Resume to: HR, Bahwan Cybernet Technologies, Inc., 209 West Central Street, Ste 312, Natick, MA01760.

S/W Application Programmers to identify, solve problems/incidents in SAP or Oracle suite of apps; analyze, design, maintain apps using either SAP, ABAP, VB, .NET, DW or Oracle database, Oracle applss (Financial, Manufacturing, Distribution, HR, Project), Oracle Appl Server PL/SQL, Reports/Forms on Windows/UNIX OS; perform req analysis, conduct functional testing/debugging; document, maintain & update use cases. Require: BS or foreign equiv. in CS/Engg (any branch) or related field and 2 years exp in IT. Travel involved. F/T position. Comp. salary. Resume to: HR, Quest America, Inc., 211 East Ontario Street, Suite 1800, Chicago, IL60611

DATABASE ADMINISTRATOR sought by flooring Co. in Sugar Land, TX. Req'd degree & exp. Respond by resume only to: Mr. A. Abdelghani, K/H#10, Floor Max, 11102 Hwy 6 South, Ste 100, Sugar Land, TX 77478.

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IBM

tail chain said he will begin to evaluate laptops from Dell while watching for any signs of change on IBM's products. The retailer uses laptops and some desktop PCs from IBM, said the director, who also asked not to be named.

Some members of Share Inc., an IBM user group based in Chicago, have expressed concerns about the sale's possible effect on hardware quality and technical support, said Robert Rosen, the group's president. "These are the things that really touch the customer," said Rosen, who is also the CIO at a unit of the National Institutes of Health in Bethesda, Md.

MasterCard International Inc. uses IBM servers now and would have liked to see if it could reduce costs by migrating to IBM's PCs as well, said Ronald Steinbruegge, vice president of global internal technologies at MasterCard's IT facilities in O'Fallon, Mo. However, the planned sale to Lenovo "will present a challenge" to that plan, he said.

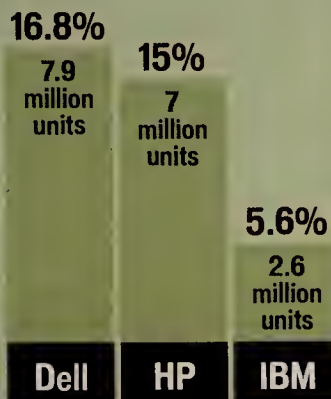
But other IT managers said they don't see the IBM-Lenovo agreement as a big deal, from a customer perspective.

Jim Prevo, CIO at Green

COMPETITIVE RANKINGS

PC Market Leaders

Worldwide unit shipments and market share for the top three PC vendors in this year's third quarter:



SOURCE: GARTNER INC., STAMFORD, CONN.

Mountain Coffee Roasters Inc. in Waterbury, Vt., said he doesn't expect the change in ownership to have any effect on his company. All the laptop PCs that Green Mountain uses are ThinkPads, Prevo said.

Mobile Travel Guide CIO Paul Mercurio likened PCs to telephones and said he doesn't see the planned sale as being consequential to IBM's long-term goals as a vendor.

PCs are "not a strategic product in the way their servers are," said Mercurio, whose company is an autonomous division of Exxon Mobile Corp. in Irving, Texas.

Mercurio added that he doesn't think the deal with Lenovo is a precursor to the sale of any of IBM's server units.

Deepak Advani, chief marketing officer at IBM's PC division, said that although Lenovo will take over development and manufacturing, IBM will continue to support the systems under an agreement that makes it the preferred service and customer financing provider to Lenovo. "A lot of our large customers want IBM doing the service and support, and that's what they will get as part of this deal," Advani said.

Terms of the Deal

Stephen Ward Jr., senior vice president and general manager of IBM's Personal Systems Group, will become Lenovo's CEO, and the company will set up a new headquarters office outside of New York. IBM will get an ownership stake of 18.9% in Lenovo, which will pay at least \$650 million in cash and up to \$600 million worth of stock for the PC unit and assume about \$500 million worth of financial liabilities from IBM.

Lenovo will manufacture the PCs to IBM's quality standards for at least five years, according to Advani. The companies said the deal will

give Lenovo annual PC revenue of about \$12 billion — a fourfold increase over its current PC business.

IBM has fallen well behind the PC pace set by Dell and HP (see chart). But one risk is that the PC sell-off could affect IBM's server sales, said Tony Iams, an analyst at D.H. Brown Associates Inc. in Port Chester, N.Y. The sale of PCs often leads to server purchases and vice versa, he said.

But Advani said IBM isn't worried about that because its sales force will be able to sell the Lenovo-made PCs.

Another potential problem is reduced sales to federal agencies in the U.S., given the Chinese government's large ownership stake in Lenovo. Ray Bjorklund, an analyst at Federal Sources Inc. in McLean, Va., said the Department of Defense and other agencies involved in national security may decide not to buy Lenovo's PCs. But, he added, other agencies "will probably be happy to buy them" if Lenovo's pricing "is extremely competitive and the machines work well." **51396**

OUR TAKE: China wants to turn Lenovo into a household name worldwide, but the company will have to be a technology innovator to succeed, Mark Hall says. **PAGE 18**

Some Find Sale Hard to Swallow

Although many users said last week that they understand the motives behind IBM's decision to sell its PC business, some found it hard to accept the planned sale of the product line that was the standard for measuring whether x86-based systems were "IBM PC Compatible."

"It really is an American icon, and to see that get sold off to a Chinese company is kind of disappointing," said Steven Gedwillo, a resource manager at Omaha Woodmen Life Insurance Society in Nebraska.

IBM was a PC pioneer, Gedwillo said, but he added that the systems have become commodities and that the sell-off may "be an indicator of a company that is looking forward."

Ike Hunley, a systems programmer at Blue Cross and Blue Shield of Florida Inc. in Jacksonville, said he was dismayed by IBM's move, which he called "just more selling off of America... piece by piece."

A senior developer at a law firm in Cleveland, who asked not to be identified, said that close to 100% of the firm's PCs are from IBM and that he thinks the firm will continue to buy IBM-branded systems from Lenovo. But he added that the sale of the PC unit to Lenovo is a bad idea.

"My concern is that the U.S. is becoming so dependent on overseas manufacturing of electronic items that we could find ourselves in a very bad situation if we get into a diplomatic tiff with our suppliers," he said.

But Daniel Menasce, a professor of computer science at George Mason University in Fairfax, Va., wasn't surprised by the sale. "The profit margin on PCs is slim," he said. "IBM makes its money on selling solutions to its customers."

— Patrick Thibodeau and Carol Sliwa

HP Revamps Midrange Storage Line

BY LUCAS MEARIAN

Hewlett-Packard Co. last week brought out several new and upgraded midrange storage products, including its first disk array that can use both SCSI and Serial ATA technology. HP also added disk-to-disk and disk-to-tape backup functionality to its StorageWorks Data Protector software.

The StorageWorks Modular Smart Array I500 cs can provide users with tiered storage inside a single enclosure. Such functionality is designed for

small and midsize businesses, which HP is aggressively courting, said Dianne McAdam, an analyst at Data Mobility Group LLC in Nashua, N.H.

The MSA1500 cs can scale to 24TB of raw capacity using 250GB Serial ATA disk drives, and up to 16TB using 300GB SCSI drives. The same software that controls the ProLiant family of servers can be used to manage the drives, said Frank Harbist, general manager of network storage solutions software at HP. The

box is priced from \$8,995.

HP also added about 200 functions to StorageWorks Data Protector, including advanced backup to disk and tape. The software can "take a snapshot of the data once a minute, do replications once an hour, perform disk-based backup once a day and tape backup once a week," said Rick Luttrall, chief technology strategist for near-line storage at HP.

Devin York, director of financial systems at Continental Airlines Inc. in Houston, said

he plans to upgrade to StorageWorks Data Protector 5.5 in next year's first quarter.

York currently runs a storage-area network with about 20TB of capacity on two HP StorageWorks XP512 arrays. He said he likes the security of being able to save data to disk and tape simultaneously. "The one project I am working on next year is disk-to-disk backup," York said. "The problem with [tape] is that as the data grows, I've got to keep adding expensive tape drives. With disk-to-disk backup, I can add extremely cheap storage as a staging device." **51357**

FRANK HAYES ■ FRANKLY SPEAKING

Making a List

“JOHNNY? ROBOSAPIEN. JAMAL? ROBOSAPIEN,” said Santa. For once, he was zipping through the list of gifts for good boys and girls at top speed. “Edgar? Robosapien. Heather? Hmm. She asked for a Barbie. I don’t suppose we could put a blond wig on a programmable robot and give her that instead, could we?”

“I don’t think so, big guy,” said the elf sitting next to him, scrolling down the computer screen. “But how about we take a break from the kids and decide what all these IT people will get under the tree?”

“Couldn’t we just give them all Robosapiens too?” Santa asked. “Those robots should appeal to the techies — they can be programmed to run, kick, belch, dance . . .”

“Bill Gates already has Steve Ballmer,” the elf said. “Scott McNealy, too, come to that. How about a magic trick? Gates claims Microsoft’s new Dynamic Systems Initiative for simplifying systems management works like magic.”

“Sure,” said Santa. “Give him the one that turns a \$1 bill into a 10 spot, not that he needs it. What about Steve Jobs?”

“Apple’s stock has been defying gravity — it tripled in price this year,” said the elf. “One of those remote-control flying saucers should work for him. And we know what Larry Ellison wants, but how do you wrap up PeopleSoft?”

“Oracle’s lawyers are doing that right now,” Santa said, looking over the elf’s shoulder. “Give him a genuine IBM PC. It’ll be a collector’s item soon, just like Larry’s thin clients. Who’s Chris Stone?”

“The guy that got Novell into the Linux business, then bailed out when he didn’t get to be boss. Rumor was it’s because he had some rough edges,” said the elf. “We’ve also got Sanjay Kumar, who got to be big cheese at Computer Associates and then had to quit this year after he was indicted.”

“Put them both down for books by Martha Stewart,” said Santa. “An etiquette manual for Stone and, for Kumar, her prison memoirs. Maybe those guys at Lycos who came up with the screen saver that’s impolite to spammers could use an etiquette book too.”

“Except now some virus writers have created a fake version that infects the user instead of annoying the spammers,” replied the elf. “Do you think the Lycos folks would

learn to look a few moves ahead if they got a chess set?”

“It’s worth a try,” Santa said. “And wrap up a pro-wrestling video game for Daimler-Chrysler’s lawyers — they really laid a smack-down on The SCO Group when SCO sued them. Why is the U.S. Interior Department on this list?”

“They just got back on the Internet,” the elf said. “A federal judge cut off their access in March, supposedly because he was worried about security. Actually, the Bureau of Indian Affairs lost track of some money — well, it’s a long story.”

“They’ve been off the Net a long time,” said Santa. “Those poor bureaucrats probably don’t even remember what worms, phishing or Nigerian spam letters look like. Better give them a firewall — the bigger the better.”

“Let’s see, for the vendors who make electronic voting machines, make it bus tickets to the North Carolina shore in January. That’s when they’re rerunning an election that went bad because the spiffy new machines lost thousands of votes. And send the Linux gang a pallet of legal pads — they’ll need them while rewriting the GPL.”

“What about all the regular IT folks?” the elf asked. “The ones still slugging it out with Sarbanes-Oxley and security and offshoring and open-source — and especially the ones slaving away for CIOs who chase after every technology trend and management fad?”

Santa laughed heartily. “Ho, ho, ho! So there is a place for all those Robosapiens among the techies after all. But all I can do is deliver the toys,” he said. “Actually replacing one robotic CIO with another will be up to them.” ☎ 51346



FRANK HAYES, *Computerworld*'s senior news columnist, has covered IT for more than 20 years. Contact him at frank_hayes@computerworld.com.

Not What I Had in Mind

A bank’s IT staff replaces some server disk drives, and just for fun, this IT manager pilot fish hands a tech a sledgehammer to make sure the data is destroyed. “Rather than going outside, he decided to pound them right next to our main cash vault — the one with vibration sensors to detect penetration attempts,” says fish. “Eventually, we got the situation resolved, but it took a little explaining to the rather tense police officer with his gun drawn and aimed at us.”

So?

This school’s IT coordinator pilot fish is showing voice-recognition

SHARK TANK

Then Wait For Her

Boss setting up a new office calls the help

software to the principal, who asks the nearby custodians to watch too. “I opened a bunch of windows on-screen, then uttered the command, ‘Close all windows,’ ” fish says. “The computer closed every window. When I didn’t hear the expected oohs and ahhs, I looked up to see the custodians waiting for all the windows in the room to close. Needless to say, they weren’t that impressed.”

Problem Solved

Pilot fish e-mails his résumé to a technical manager. “Some mail filters block Microsoft Word documents because they can contain macro viruses, so I first converted my file to rich-text format,” fish says. “The response: ‘Our scanning filter found your résumé ending in .rtf to be suspicious. If you’d like to resend as a Word doc, please do.’ ” Fish sends a note pointing out that Word files are much more likely to be a problem. Tech manager: “All I know is that I do not have your résumé. If you are interested, please resend it.”

Unclear on The Concept

Government field staffer gets his first PC and cell phone, but something’s not working, so he calls the help desk. Pilot fish asks him to dial up on his phone line, then call fish on his cell phone. “He said his phone was in the truck, but the cord wouldn’t reach from there to the computer,” says fish. “When told to unplug the cell phone and bring it to the PC, he said that wouldn’t work because he didn’t have any of those types of plugs in the house. The call went downhill from there.”

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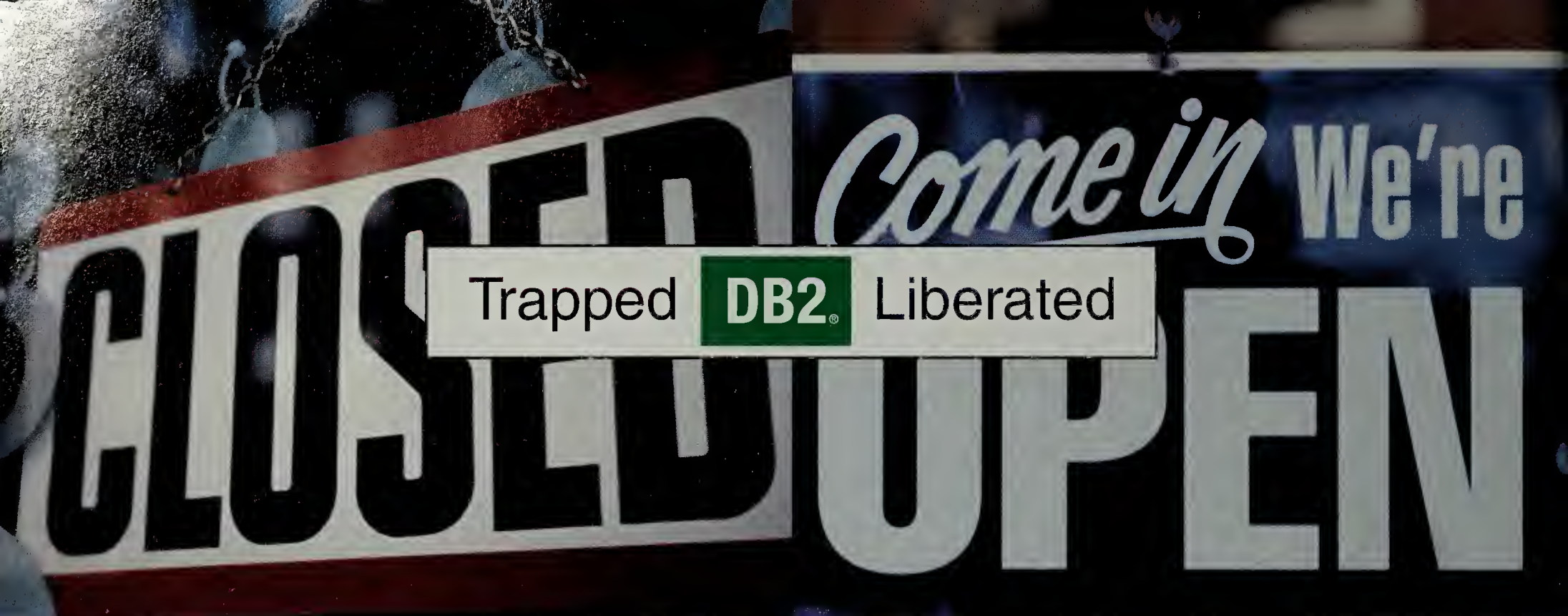
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Database required 25% more time to manage than DB2². And the Transaction Processing Performance Council showed DB2 as the overall price/performance leader for TPC-C on Linux, UNIX and Windows. Ahead of both Oracle Database and Microsoft[®] SQL Server³.

Then there's this: Oracle will drop the current level of support for Oracle Database 8i at the end of 2004. Meaning limited support, higher cost or a complete migration to current versions. Fortunately, IBM offers ongoing, around-the-clock service and support for DB2.

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